

=> fil cap
 FILE 'CAPLUS' ENTERED AT 15:12:41 ON 28 DEC 2007
 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
 PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
 COPYRIGHT (C) 2007 AMERICAN CHEMICAL SOCIETY (ACS)

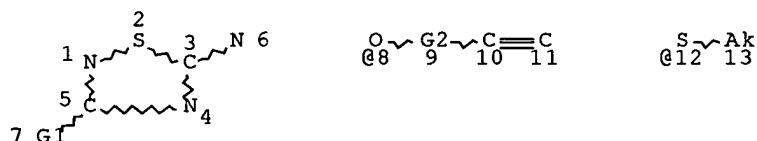
Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 28 Dec 2007 VOL 148 ISS 1
 FILE LAST UPDATED: 27 Dec 2007 (20071227/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

<http://www.cas.org/infopolicy.html>

=> d que 112
 L1 STR



VAR G1=8/12
 REP G2=(0-10) C
 NODE ATTRIBUTES:
 NSPEC IS R AT 6
 CONNECT IS E1 RC AT 13
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE

L3 98 SEA FILE=REGISTRY SSS FUL L1
 L4 21 SEA FILE=CAPLUS ABB=ON PLU=ON L3
 L5 242 SEA FILE=CAPLUS ABB=ON PLU=ON ("IHARA H"/AU OR "IHARA
 HIDEAKI"/AU OR "IHARA HIDEKI"/AU)
 L6 51 SEA FILE=CAPLUS ABB=ON PLU=ON ("TAKAOKA D"/AU OR "TAKAOKA
 DAISUKE"/AU)
 L7 186 SEA FILE=CAPLUS ABB=ON PLU=ON ("MIZUNO H"/AU OR "MIZUNO
 HAJIME"/AU)
 L8 474 SEA FILE=CAPLUS ABB=ON PLU=ON (L5 OR L6 OR L7)
 L9 6 SEA FILE=CAPLUS ABB=ON PLU=ON L8 AND THIA? AND ?AZOL?
 L10 1 SEA FILE=CAPLUS ABB=ON PLU=ON L9 AND L4

L12 21 SEA FILE=CAPLUS ABB=ON PLU=ON L4 OR L10

=> d 112 ibib abs hitstr tot

L12 ANSWER 1 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:680917 CAPLUS Full-text

DOCUMENT NUMBER: 145:145750

TITLE: Preparation of pyrrolidine derivatives as
dipeptidylpeptidase IV inhibitors

INVENTOR(S): Nakai, Hisao; Kondo, Takashi; Ota, Motohiro

PATENT ASSIGNEE(S): Ono Pharmaceutical Co., Ltd., Japan

SOURCE: PCT Int. Appl., 163 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006073167	A1	20060713	WO 2006-JP300061	20060106
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				

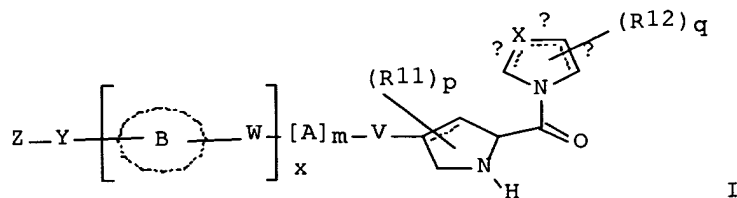
PRIORITY APPLN. INFO.:

JP 2005-3063

A 20050107

OTHER SOURCE(S): MARPAT 145:145750

GI



AB The title compds. I [V, W and Y represent each a bond or a spacer having from 1 to 8 atoms in the main chain; the rings A and B are each a cyclic group optionally further having substituent(s); Z represents H or a substituent; X represents carbon or sulfur; R11 and R12 represent each a substituent; p and q are each 0 or an integer of 1 to 4; and x and m are each 0 or 1; the dotted line indicates a single bond or a double bond; α and β or β and γ do not

represent double bonds at the same time; when X is S, both α and β indicate single bonds] are prepared. Thus, 1-(3-methyl-1,2,4-thiadiazol-5-yl)-4-([(3S,5S)-5-(pyrrolidin-1-ylcarbonyl)pyrrolidin-3-yl]carbonyl)piperazine hydrochloride was prepared in a multistep process from 2-benzyl 1-tert-Bu (2S,4S)-4-cyano-1,2-pyrrolidinedicarboxylate. Compds. of this invention showed IC₅₀ values of 18 nM to 52 nM against dipeptidylpeptidase IV. Formulations are given.

IT 898274-42-5P

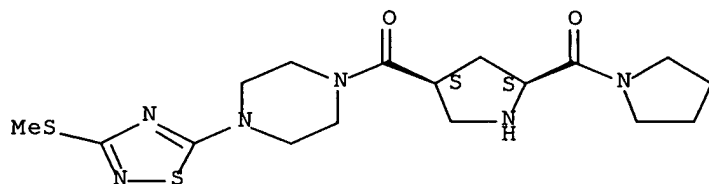
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of pyrrolidine derivs. as dipeptidylpeptidase IV inhibitors)

RN 898274-42-5 CAPLUS

CN Piperazine, 1-[3-(methylthio)-1,2,4-thiadiazol-5-yl]-4-([(3S,5S)-5-(1-pyrrolidinylcarbonyl)-3-pyrrolidinyl]carbonyl)-, monohydrochloride (9CI) (CA INDEX NAME)

Absolute stereochemistry.



● HCl

REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 2 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:489438 CAPLUS Full-text

DOCUMENT NUMBER: 144:462620

TITLE: Pest control compositions containing imidacloprid and pyrimidines or thiadiazoles

INVENTOR(S): Shimokawadoko, Yasutaka; Yamada, Koji

PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 46 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

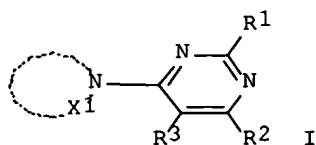
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006131536	A	20060525	JP 2004-321494	20041105
PRIORITY APPLN. INFO.:			JP 2004-321494	20041105
OTHER SOURCE(S):	MARPAT	144:462620		

GI



AB Pest control compns. with excellent efficacy contain (1) a pyrimidine compound (I, wherein R1 = H, alkyl; R2 = alkynyloxy; R3 = H, halo, alkyl; X1 = (un)substituted C4-7 polymethylene) or a thiadiazole and (2) imidacloprid as active components. Thus, 4-(2-butynyloxy)-5-fluoro-6-(3,3-dimethylpyrrolidin-1-yl)pyrimidine + Admire wettable powder at 12.5 + 0.025 ppm was more effective than the individual components at the same rates against *Aphis gossypii* on cucumber.

IT 886841-46-9 886841-48-1 886841-50-5

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
(as pesticide)

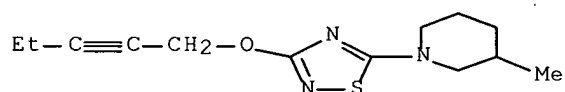
RN 886841-46-9 CAPLUS

CN 2-Imidazolidinimine, 1-[(6-chloro-3-pyridinyl)methyl]-N-nitro-, (2E)-, mixt. with 3-methyl-1-[3-(2-pentyloxy)-1,2,4-thiadiazol-5-yl]piperidine (9CI) (CA INDEX NAME)

CM 1

CRN 850748-38-8

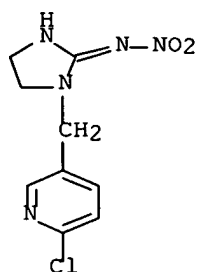
CMF C13 H19 N3 O S



CM 2

CRN 138261-41-3

CMF C9 H10 Cl N5 O2



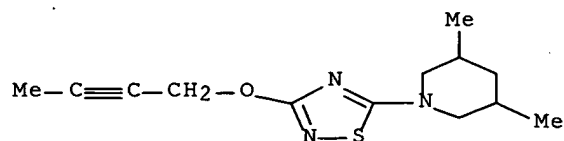
RN 886841-48-1 CAPLUS

CN 2-Imidazolidinimine, 1-[(6-chloro-3-pyridinyl)methyl]-N-nitro-, (2E)-,
 mixt. with 1-[3-(2-butynyloxy)-1,2,4-thiadiazol-5-yl]-3,5-
 dimethylpiperidine (9CI) (CA INDEX NAME)

CM 1

CRN 886757-59-1

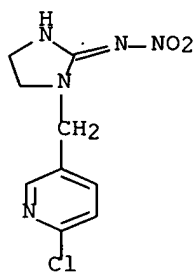
CMF C13 H19 N3 O S



CM 2

CRN 138261-41-3

CMF C9 H10 Cl N5 O2



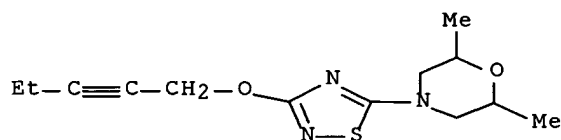
RN 886841-50-5 CAPLUS

CN 2-Imidazolidinimine, 1-[(6-chloro-3-pyridinyl)methyl]-N-nitro-, (2E)-,
 mixt. with 2,6-dimethyl-4-[3-(2-pentynyloxy)-1,2,4-thiadiazol-5-
 yl]morpholine (9CI) (CA INDEX NAME)

CM 1

CRN 886757-61-5

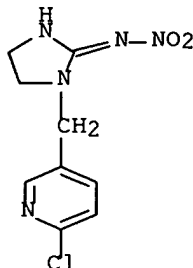
CMF C13 H19 N3 O2 S



CM 2

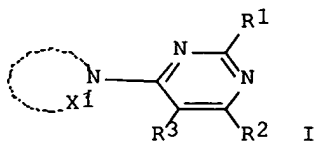
CRN 138261-41-3

CMF C9 H10 Cl N5 O2



L12 ANSWER 3 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2006:489434 CAPLUS Full-text
 DOCUMENT NUMBER: 144:462619
 TITLE: Pest control compositions containing acetamiprid and pyrimidines or thiadiazoles
 INVENTOR(S): Shimokawadoko, Yasutaka; Yamada, Koji
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 47 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006131537	A	20060525	JP 2004-321495	20041105
PRIORITY APPLN. INFO.:			JP 2004-321495	20041105
OTHER SOURCE(S):	MARPAT 144:462619			
GI				



AB Highly effective pest control compns. contain (1) pyrimidines (I, wherein R1 = H, alkyl; R2 = alkynyloxy; R3 = H, halo, alkyl; X1 = (un)substituted C4-7 polymethylene) or 1,2,4-thiadiazole derivs. such as 3-(2-pentynyloxy)-5-(3-methylpiperidino)-1,2,4-thiadiazole and (2) (E)-N1-[(6-chloro-3-pyridyl)methyl]-N2-cyano-N1-methylacetamidine (acetamiprid). Thus, 4-(2-

butynyloxy)-5-fluoro-6-(3,3-dimethylpyrrolidin-1-yl)pyrimidine + acetamiprid
at 12.5 + 0.025 ppm was more effective than the individual components at the
same rates against *Aphis gossypii* on cucumber.

IT 886840-72-8 886840-73-9 886840-74-0

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL
(Biological study); USES (Uses)
(as pesticide)

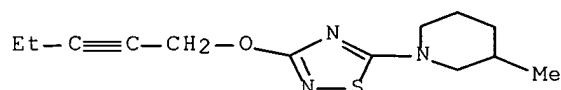
RN 886840-72-8 CAPLUS

CN Ethanimidamide, N-[(6-chloro-3-pyridinyl)methyl]-N'-cyano-N-methyl-,
(1E)-, mixt. with 3-methyl-1-[3-(2-pentynyloxy)-1,2,4-thiadiazol-5-
yl]piperidine (9CI) (CA INDEX NAME)

CM 1

CRN 850748-38-8

CMF C13 H19 N3 O S

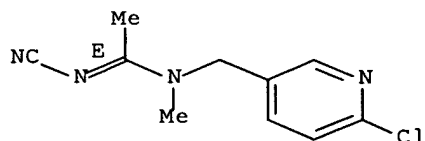


CM 2

CRN 135410-20-7

CMF C10 H11 Cl N4

Double bond geometry as shown.



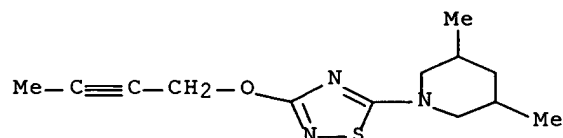
RN 886840-73-9 CAPLUS

CN Ethanimidamide, N-[(6-chloro-3-pyridinyl)methyl]-N'-cyano-N-methyl-,
(1E)-, mixt. with 1-[3-(2-butynyloxy)-1,2,4-thiadiazol-5-yl]-3,5-
dimethylpiperidine (9CI) (CA INDEX NAME)

CM 1

CRN 886757-59-1

CMF C13 H19 N3 O S

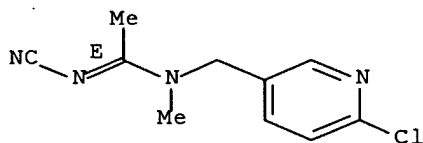


CM 2

CRN 135410-20-7

CMF C10 H11 Cl N4

Double bond geometry as shown.



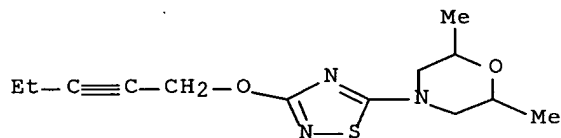
RN 886840-74-0 CAPLUS

CN Ethanimidamide, N-[(6-chloro-3-pyridinyl)methyl]-N'-cyano-N-methyl-, (1E)-, mixt. with 2,6-dimethyl-4-[3-(2-pentynyloxy)-1,2,4-thiadiazol-5-yl]morpholine (9CI) (CA INDEX NAME)

CM 1

CRN 886757-61-5

CMF C13 H19 N3 O2 S

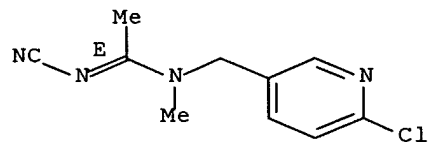


CM 2

CRN 135410-20-7

CMF C10 H11 Cl N4

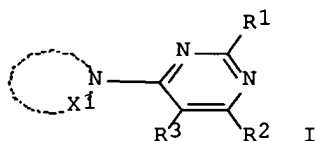
Double bond geometry as shown.



ACCESSION NUMBER: 2006:489433 CAPLUS Full-text
 DOCUMENT NUMBER: 144:462618
 TITLE: Pest control compositions containing pyriproxyfen and
 pyrimidines or thiadiazoles
 INVENTOR(S): Shimokawadoko, Yasutaka; Yamada, Koji
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 46 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006131528	A	20060525	JP 2004-321486	20041105
PRIORITY APPLN. INFO.:			JP 2004-321486	20041105
OTHER SOURCE(S):	MARPAT	144:462618		

GI



AB Highly effective pest control compns. contain (1) pyrimidines (I, wherein R1 = H, alkyl; R2 = alkynyloxy; R3 = H, halo, alkyl; X1 = (un)substituted C4-7 polymethylene) or 1,2,4-thiadiazole derivs. such as 3-(2-pentynyloxy)-5-(3-methylpiperidino)-1,2,4-thiadiazole and (2) 4-phenoxyphenyl (RS)-2-(2-pyridyloxy) Pr ether (pyriproxyfen) as active components. Thus, 4-(2-butynyloxy)-5-fluoro-6-(3,3-dimethylpyrrolidin-1-yl)pyrimidine + pyriproxyfen at 0.15 + 50 ppm showed greater control of Bemisia argentifolii on cabbage than the individual components at the same resp. rates.

IT 886840-29-5 886840-30-8 886840-31-9
 RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
 (as pesticide)

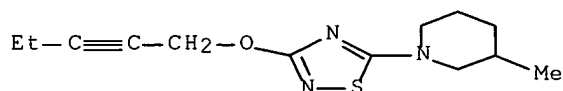
RN 886840-29-5 CAPLUS

CN Pyridine, 2-[1-methyl-2-(4-phenoxyphenoxy)ethoxy]-, mixt. with
 3-methyl-1-[3-(2-pentynyloxy)-1,2,4-thiadiazol-5-yl]piperidine (9CI) (CA
 INDEX NAME)

CM 1

CRN 850748-38-8

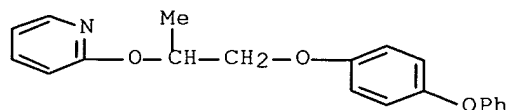
CMF C13 H19 N3 O S



CM 2

CRN 95737-68-1

CMF C20 H19 N O3



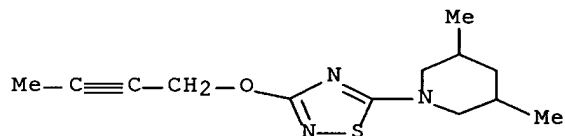
RN 886840-30-8 CAPLUS

CN Pyridine, 2-[1-methyl-2-(4-phenoxyphenoxy)ethoxy]-, mixt. with
 1-[3-(2-butynyloxy)-1,2,4-thiadiazol-5-yl]-3,5-dimethylpiperidine (9CI)
 (CA INDEX NAME)

CM 1

CRN 886757-59-1

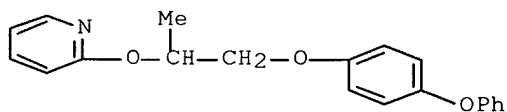
CMF C13 H19 N3 O S



CM 2

CRN 95737-68-1

CMF C20 H19 N O3

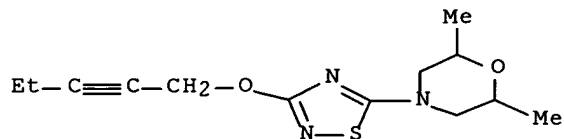


RN 886840-31-9 CAPLUS

CN Morpholine, 2,6-dimethyl-4-[3-(2-pentynyloxy)-1,2,4-thiadiazol-5-yl]-,
 mixt. with 2-[1-methyl-2-(4-phenoxyphenoxy)ethoxy]pyridine (9CI) (CA
 INDEX NAME)

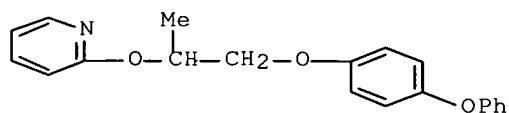
CM 1

CRN 886757-61-5
CMF C13 H19 N3 O2 S



CM 2

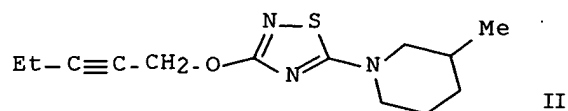
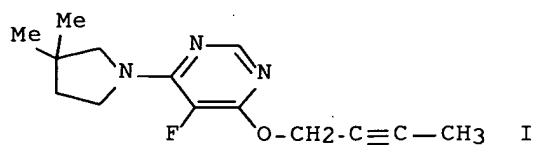
CRN 95737-68-1
CMF C20 H19 N O3



L12 ANSWER 5 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:489432 CAPLUS Full-text
DOCUMENT NUMBER: 144:462617
TITLE: Pest control compositions containing thiamethoxam and pyrimidines or thiadiazoles
INVENTOR(S): Shimokawadoko, Yasutaka; Yamada, Koji
PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 47 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
JP 2006131530	A	20060525	JP 2004-321488	20041105
PRIORITY APPLN. INFO.:			JP 2004-321488	20041105
OTHER SOURCE(S):	MARPAT	144:462617		

GI



AB Compns. with excellent pest control effect contain (1) a pyrimidine compound (e.g., I) or a 1,2,4-thiadiazole derivative (e.g., II) and (2) 3-[(2-chloro-1,3-thiazol-5-yl)methyl]-5-methyl-1,3,5-oxadiazinan-4-ylidene(nitro)amine (thiamethoxam). Thus, I + thiamethoxam at 12.5 + 0.025 ppm was more effective than the individual components at the same rates against *Aphis gossypii* on cucumber.

IT 886843-19-2 886843-21-6 886843-22-7

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
(as pesticide)

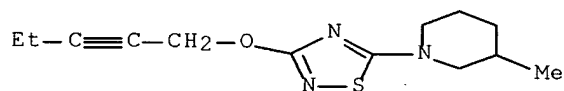
RN 886843-19-2 CAPLUS

CN 4H-1,3,5-Oxadiazin-4-imine, 3-[(2-chloro-5-thiazolyl)methyl]tetrahydro-5-methyl-N-nitro-, mixt. with 3-methyl-1-[3-(2-pentynyloxy)-1,2,4-thiadiazol-5-yl]piperidine (9CI) (CA INDEX NAME)

CM 1

CRN 850748-38-8

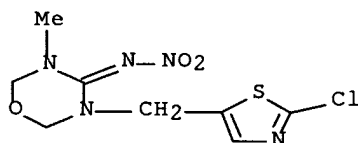
CMF C13 H19 N3 O S



CM 2

CRN 153719-23-4

CMF C8 H10 Cl N5 O3 S



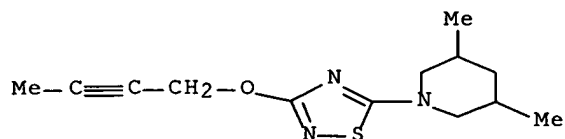
RN 886843-21-6 CAPLUS

CN 4H-1,3,5-Oxadiazin-4-imine, 3-[(2-chloro-5-thiazolyl)methyl]tetrahydro-5-methyl-N-nitro-, mixt. with 1-[3-(2-butynyloxy)-1,2,4-thiadiazol-5-yl]-3,5-dimethylpiperidine (9CI) (CA INDEX NAME)

CM 1

CRN 886757-59-1

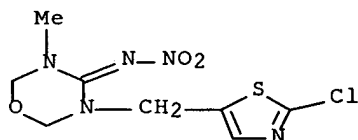
CMF C13 H19 N3 O S



CM 2

CRN 153719-23-4

CMF C8 H10 Cl N5 O3 S



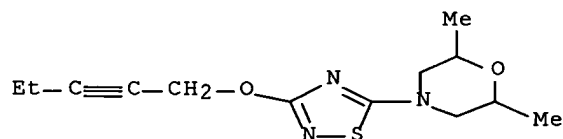
RN 886843-22-7 CAPLUS

CN 4H-1,3,5-Oxadiazin-4-imine, 3-[(2-chloro-5-thiazolyl)methyl]tetrahydro-5-methyl-N-nitro-, mixt. with 2,6-dimethyl-4-[3-(2-pentynyloxy)-1,2,4-thiadiazol-5-yl]morpholine (9CI) (CA INDEX NAME)

CM 1

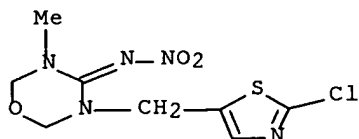
CRN 886757-61-5

CMF C13 H19 N3 O2 S



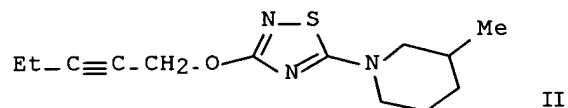
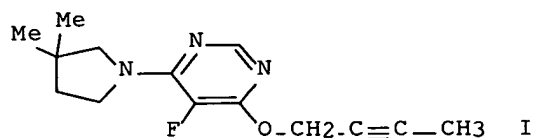
CM 2

CRN 153719-23-4
CMF C8 H10 Cl N5 O3 S



L12 ANSWER 6 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2006:489274 CAPLUS Full-text
 DOCUMENT NUMBER: 144:462616
 TITLE: Pest control compositions containing fenpropathrin and pyrimidines or thiadiazoles
 INVENTOR(S): Shimokawatoko, Yasutaka; Yamada, Koji
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 44 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006131541	A	20060525	JP 2004-321499	20041105
PRIORITY APPLN. INFO.:			JP 2004-321499	20041105
OTHER SOURCE(S):	MARPAT 144:462616			
GI				



AB Compns. with excellent pest control effect contain (1) a pyrimidine derivative (e.g., I) or a 1,2,4-thiadiazole (e.g., II) and (2) fenpropathrin. Thus, 4-(2-butynyloxy)-5-fluoro-6-(3,3-dimethylpyrrolidin-1-yl)pyrimidine + Rody (500 + 100 ppm) gave almost 100% control of Aphis gossypii on cucumber.
 IT 886974-51-2 886974-52-3 886974-53-4
 RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
 (as pesticide)

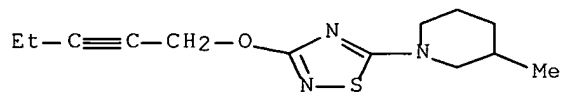
RN 886974-51-2 CAPLUS

CN Cyclopropanecarboxylic acid, 2,2,3,3-tetramethyl-, cyano(3-phenoxyphenyl)methyl ester, mixt. with 3-methyl-1-[3-(2-pentynyloxy)-1,2,4-thiadiazol-5-yl]piperidine (9CI) (CA INDEX NAME)

CM 1

CRN 850748-38-8

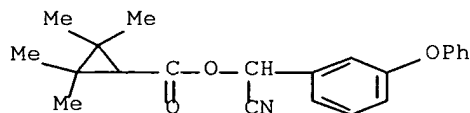
CMF C13 H19 N3 O S



CM 2

CRN 39515-41-8

CMF C22 H23 N O3



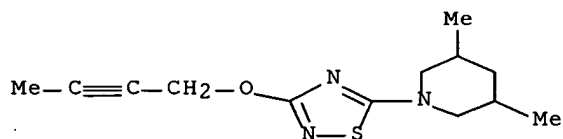
RN 886974-52-3 CAPLUS

CN Cyclopropanecarboxylic acid, 2,2,3,3-tetramethyl-, cyano(3-phenoxyphenyl)methyl ester, mixt. with 1-[3-(2-butynyloxy)-1,2,4-thiadiazol-5-yl]-3,5-dimethylpiperidine (9CI) (CA INDEX NAME)

CM 1

CRN 886757-59-1

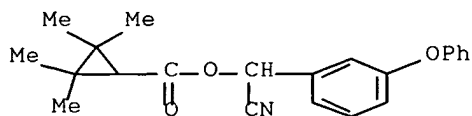
CMF C13 H19 N3 O S



CM 2

CRN 39515-41-8

CMF C22 H23 N O3



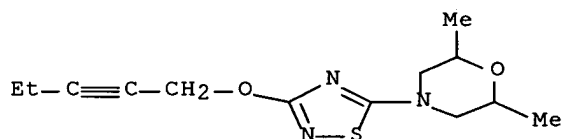
RN 886974-53-4 CAPLUS

CN Cyclopropanecarboxylic acid, 2,2,3,3-tetramethyl-, cyano(3-phenoxyphenyl)methyl ester, mixt. with 2,6-dimethyl-4-[3-(2-pentynyloxy)-1,2,4-thiadiazol-5-yl]morpholine (9CI) (CA INDEX NAME)

CM 1

CRN 886757-61-5

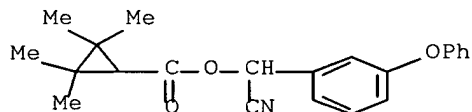
CMF C13 H19 N3 O2 S



CM 2

CRN 39515-41-8

CMF C22 H23 N O3



L12 ANSWER 7 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:489273 CAPLUS Full-text

DOCUMENT NUMBER: 144:462615

TITLE: Pest control compositions containing
λ-cyhalothrin and pyrimidines or thiadiazoles

INVENTOR(S): Shimokawatoko, Yasutaka; Yamada, Koji

PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 45 pp.

CODEN: JKXXAF

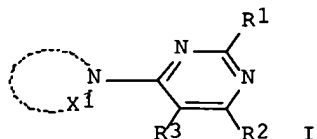
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006131539	A	20060525	JP 2004-321497	20041105
PRIORITY APPLN. INFO.:			JP 2004-321497	20041105
OTHER SOURCE(S):	MARPAT 144:462615			
GI				



AB Compns. with excellent efficacy in pest control contain (1) a pyrimidine (I, wherein R1 = H, alkyl; R2 = alkynyloxy; R3 = H, halo, alkyl; X1 = (un)substituted C4-7 polymethylene) or a thiadiazole compound such as 3-(2-pentynyloxy)-5-(3-methylpiperidino)-1,2,4-thiadiazole and (2) λ -cyhalothrin. Thus, 4-(2-butynyloxy)-5-fluoro-6-(3,3-dimethylpyrrolidin-1-yl)pyrimidine + Karate at 12.5 + 1.5 ppm was more effective than the individual components at the same rates against *Aphis gossypii* on cucumber.

IT 886844-06-0 886844-07-1 886844-08-2
 RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
 (as pesticide)

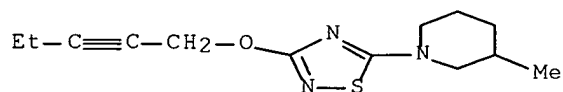
RN 886844-06-0 CAPLUS

CN Cyclopropanecarboxylic acid, 3-[(1Z)-2-chloro-3,3,3-trifluoro-1-propenyl]-2,2-dimethyl-, (R)-cyano(3-phenoxyphenyl)methyl ester, (1S,3S)-rel-, mixt. with 3-methyl-1-[3-(2-pentynyloxy)-1,2,4-thiadiazol-5-yl]piperidine (9CI)
 (CA INDEX NAME)

CM 1

CRN 850748-38-8

CMF C13 H19 N3 O S

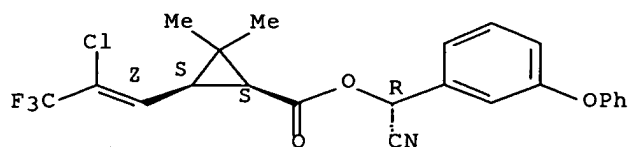


CM 2

CRN 91465-08-6

CMF C23 H19 Cl F3 N O3

Relative stereochemistry.
 Double bond geometry as shown.



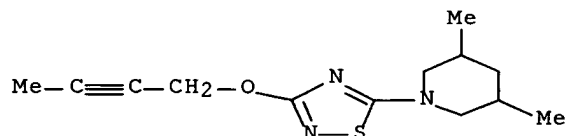
RN 886844-07-1 CAPLUS

CN Cyclopropanecarboxylic acid, 3-[(1Z)-2-chloro-3,3,3-trifluoro-1-propenyl]-2,2-dimethyl-, (R)-cyano(3-phenoxyphenyl)methyl ester, (1S,3S)-rel-, mixt. with 1-[3-(2-butynyloxy)-1,2,4-thiadiazol-5-yl]-3,5-dimethylpiperidine (9CI) (CA INDEX NAME)

CM 1

CRN 886757-59-1

CMF C13 H19 N3 O S

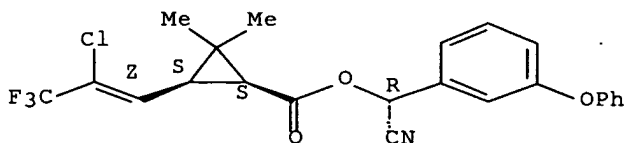


CM 2

CRN 91465-08-6

CMF C23 H19 Cl F3 N O3

Relative stereochemistry.
Double bond geometry as shown.



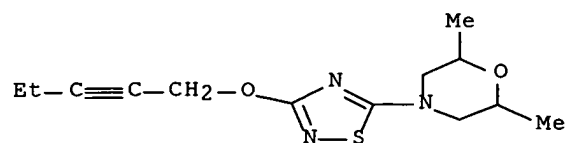
RN 886844-08-2 CAPLUS

CN Cyclopropanecarboxylic acid, 3-[(1Z)-2-chloro-3,3,3-trifluoro-1-propenyl]-2,2-dimethyl-, (R)-cyano(3-phenoxyphenyl)methyl ester, (1S,3S)-rel-, mixt. with 2,6-dimethyl-4-[3-(2-pentynyloxy)-1,2,4-thiadiazol-5-yl]morpholine (9CI) (CA INDEX NAME)

CM 1

CRN 886757-61-5

CMF C13 H19 N3 O2 S

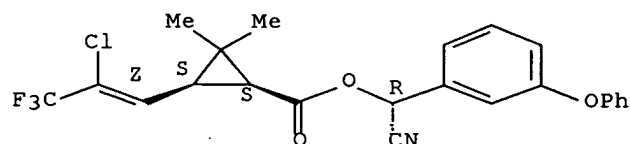


CM 2

CRN 91465-08-6

CMF C23 H19 Cl F3 N O3

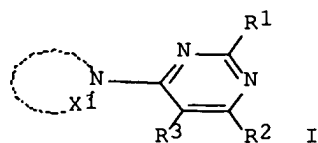
Relative stereochemistry.
Double bond geometry as shown.



L12 ANSWER 8 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2006:489271 CAPLUS Full-text
 DOCUMENT NUMBER: 144:462614
 TITLE: Pest control compositions containing deltamethrin and pyrimidines or thiadiazoles
 INVENTOR(S): Shimokawatoko, Yasutaka; Yamada, Koji
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 45 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006131538	A	20060525	JP 2004-321496	20041105
PRIORITY APPLN. INFO.:			JP 2004-321496	20041105
OTHER SOURCE(S):		MARPAT 144:462614		

GI



AB Pest control compns. with superior efficacy contain (1) a pyrimidine (I, wherein R1 = H, alkyl; R2 = alkynyloxy; R3 = H, halo, alkyl; X1 = (un)substituted C4-7 polymethylene) or a 1,2,4-thiadiazole derivative such as 3-(2-pentynyloxy)-5-(3-methylpiperidino)-1,2,4-thiadiazole and (2) deltamethrin. Thus, 4-(2-butynyloxy)-5-fluoro-6-(3,3-dimethylpyrrolidin-1-yl)pyrimidine + deltamethrin emulsion (Decis) at 12.5+ 1.5 ppm was more effective than the individual components at the same rates against *Aphis gossypii* on cucumber.

IT 886841-88-9 886841-90-3 886841-92-5
 RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
 (as pesticide)

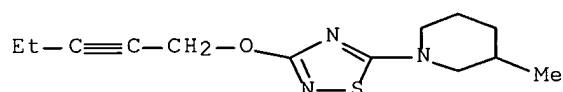
RN 886841-88-9 CAPLUS

CN Cyclopropanecarboxylic acid, 3-(2,2-dibromoethenyl)-2,2-dimethyl-, (S)-cyano(3-phenoxyphenyl)methyl ester, (1R,3R)-, mixt. with 3-methyl-1-[3-(2-pentynyloxy)-1,2,4-thiadiazol-5-yl]piperidine (9CI) (CA INDEX NAME)

CM 1

CRN 850748-38-8

CMF C13 H19 N3 O S

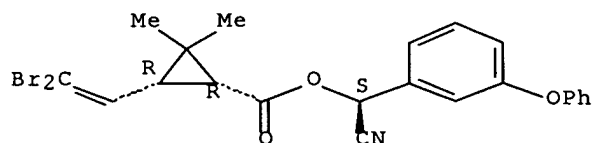


CM 2

CRN 52918-63-5

CMF C22 H19 Br2 N O3

Absolute stereochemistry.



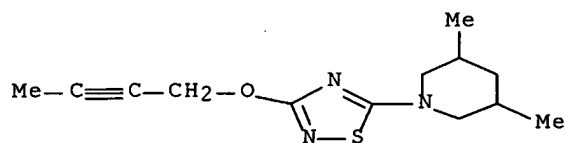
RN 886841-90-3 CAPLUS

CN Cyclopropanecarboxylic acid, 3-(2,2-dibromoethenyl)-2,2-dimethyl-, (S)-cyano(3-phenoxyphenyl)methyl ester, (1R,3R)-, mixt. with 1-[3-(2-butynyloxy)-1,2,4-thiadiazol-5-yl]-3,5-dimethylpiperidine (9CI) (CA INDEX NAME)

CM 1

CRN 886757-59-1

CMF C13 H19 N3 O S

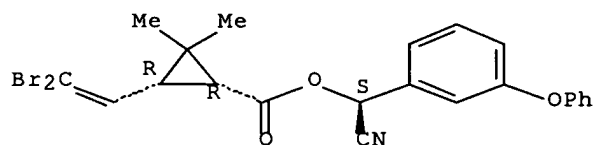


CM 2

CRN 52918-63-5

CMF C22 H19 Br2 N O3

Absolute stereochemistry.



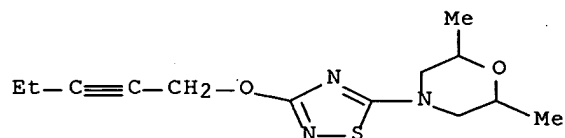
RN 886841-92-5 CAPLUS

CN Cyclopropanecarboxylic acid, 3-(2,2-dibromoethenyl)-2,2-dimethyl-,
(S)-cyano(3-phenoxyphenyl)methyl ester, (1R,3R)-, mixt. with
2,6-dimethyl-4-[3-(2-pentynyloxy)-1,2,4-thiadiazol-5-yl]morpholine (9CI)
(CA INDEX NAME)

CM 1

CRN 886757-61-5

CMF C13 H19 N3 O2 S

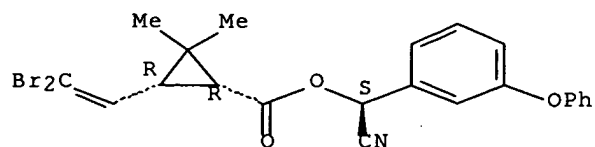


CM 2

CRN 52918-63-5

CMF C22 H19 Br2 N O3

Absolute stereochemistry.



L12 ANSWER 9 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:489270 CAPLUS Full-text

DOCUMENT NUMBER: 144:462613

TITLE: Pest control compositions containing dinotefuran and pyrimidines or thiadiazoles

INVENTOR(S): Shimokawatoko, Yasutaka; Yamada, Koji

PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 46 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

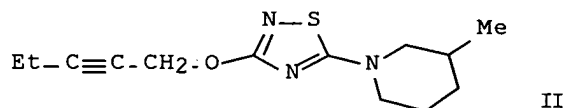
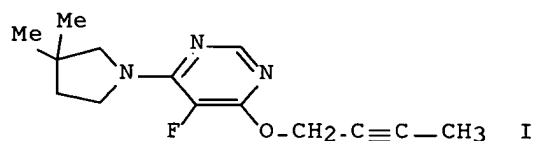
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006131533	A	20060525	JP 2004-321491	20041105
PRIORITY APPLN. INFO.:			JP 2004-321491	20041105
OTHER SOURCE(S):	MARPAT	144:462613		

GI



AB Pest control compns. with superior efficacy contain (1) a pyrimidine compound (e.g., I) or a 1,2,4-thiadiazole derivative (e.g., II) and (2) dinotefuran. Thus, I + dinotefuran at 12.5 + 0.025 ppm was more effective than the individual components at the same rates against *Aphis gossypii* on cucumber.

IT 886757-58-0 886757-60-4 886757-62-6

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
(as pesticide)

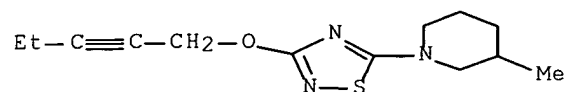
RN 886757-58-0 CAPLUS

CN Guanidine, N-methyl-N'-nitro-N''-[(tetrahydro-3-furanyl)methyl]-, mixt. with 3-methyl-1-[3-(2-pentynyloxy)-1,2,4-thiadiazol-5-yl]piperidine (9CI)
(CA INDEX NAME)

CM 1

CRN 850748-38-8

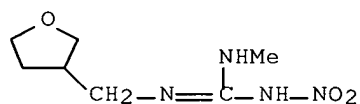
CMF C13 H19 N3 O S



CM 2

CRN 165252-70-0

CMF C7 H14 N4 O3



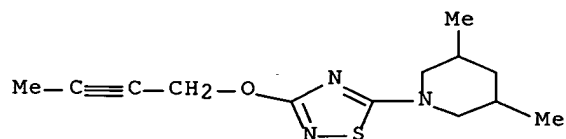
RN 886757-60-4 CAPLUS

CN Guanidine, N-methyl-N'-nitro-N''-[(tetrahydro-3-furanyl)methyl]-, mixt.
with 1-[3-(2-butynyloxy)-1,2,4-thiadiazol-5-yl]-3,5-dimethylpiperidine
(9CI) (CA INDEX NAME)

CM 1

CRN 886757-59-1

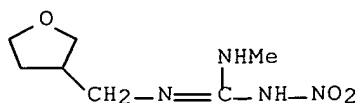
CMF C13 H19 N3 O S



CM 2

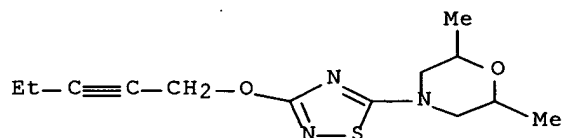
CRN 165252-70-0

CMF C7 H14 N4 O3



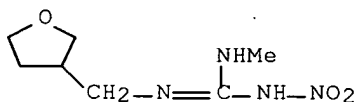
CM 1

CRN 886757-61-5
CMF C13 H19 N3 O2 S



CM 2

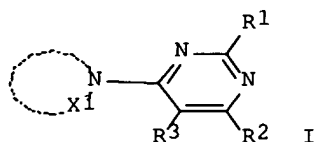
CRN 165252-70-0
CMF C7 H14 N4 O3



L12 ANSWER 10 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN
ACCESSION NUMBER: 2006:489269 CAPLUS Full-text
DOCUMENT NUMBER: 144:462612
TITLE: Pest control compositions containing cypermethrin and
pyrimidines or thiadiazoles
INVENTOR(S): Shimokawatoko, Yasutaka; Yamada, Koji
PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 45 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
------------	------	------	-----------------	------

JP 2006131532	A	20060525	JP 2004-321490	20041105
PRIORITY APPLN. INFO.:			JP 2004-321490	20041105
OTHER SOURCE(S):	MARPAT 144:462612			
GI				



AB Pest control compns. with excellent efficacy contain (1) pyrimidines (I, wherein R1 = H, alkyl; R2 = alkynyloxy; R3 = H, halo, alkyl; X1 = (un)substituted C4-7 polymethylene) or 1,2,4-thiadiazole derivs. such as 3-(2-pentynyloxy)-5-(3-methylpiperidino)-1,2,4-thiadiazole and (2) (RS)- α -cyano-3-phenoxybenzyl (1RS,3RS;1RS,3SR)-3-(2,2-dichlorovinyl)-2,2-dimethylcyclopropanecarboxylate (cypermethrin). Thus, 4-(2-butynyloxy)-5-fluoro-6-(3,3-dimethylpyrrolidin-1-yl)pyrimidine + cypermethrin at 12.5 + 1.5 ppm was more effective than the individual components at the same rates against *Aphis gossypii* on cucumber.

IT 886840-50-2 886840-51-3 886840-52-4
 RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
 (as pesticide)

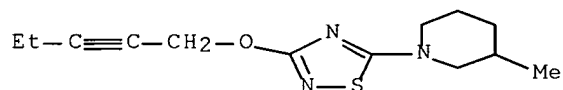
RN 886840-50-2 CAPLUS

CN Cyclopropanecarboxylic acid, 3-(2,2-dichloroethenyl)-2,2-dimethyl-, cyano(3-phenoxyphenyl)methyl ester, mixt. with 3-methyl-1-[3-(2-pentynyloxy)-1,2,4-thiadiazol-5-yl]piperidine (9CI) (CA INDEX NAME)

CM 1

CRN 850748-38-8

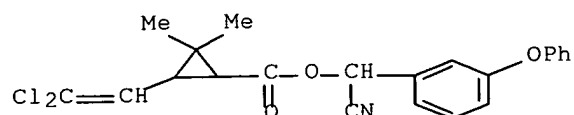
CMF C13 H19 N3 O S



CM 2

CRN 52315-07-8

CMF C22 H19 Cl2 N O3



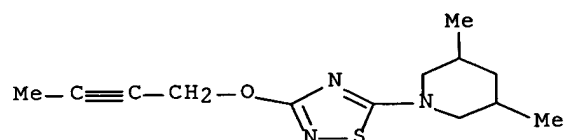
RN 886840-51-3 CAPLUS

CN Cyclopropanecarboxylic acid, 3-(2,2-dichloroethenyl)-2,2-dimethyl-, cyano(3-phenoxyphenyl)methyl ester, mixt. with 1-[3-(2-butynyloxy)-1,2,4-thiadiazol-5-yl]-3,5-dimethylpiperidine (9CI) (CA INDEX NAME)

CM 1

CRN 886757-59-1

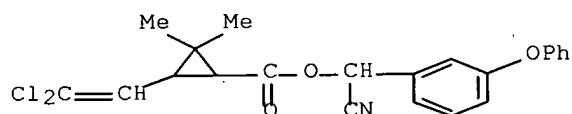
CMF C13 H19 N3 O S



CM 2

CRN 52315-07-8

CMF C22 H19 Cl2 N O3



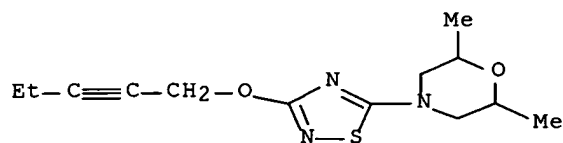
RN 886840-52-4 CAPLUS

CN Cyclopropanecarboxylic acid, 3-(2,2-dichloroethenyl)-2,2-dimethyl-, cyano(3-phenoxyphenyl)methyl ester, mixt. with 2,6-dimethyl-4-[3-(2-pentynyloxy)-1,2,4-thiadiazol-5-yl]morpholine (9CI) (CA INDEX NAME)

CM 1

CRN 886757-61-5

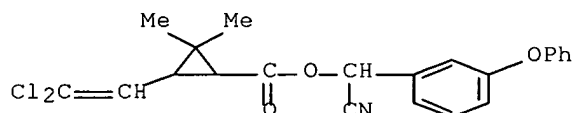
CMF C13 H19 N3 O2 S



CM 2

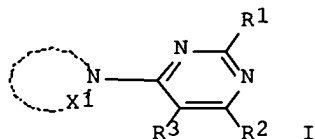
CRN 52315-07-8

CMF C22 H19 Cl2 N O3



L12 ANSWER 11 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2006:489268 CAPLUS Full-text
 DOCUMENT NUMBER: 144:462611
 TITLE: Pest control compositions containing esfenvalerate and pyrimidines or thiadiazoles
 INVENTOR(S): Shimokawatoko, Yasutaka; Yamada, Koji
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 45 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006131535	A	20060525	JP 2004-321493	20041105
PRIORITY APPLN. INFO.:			JP 2004-321493	20041105
OTHER SOURCE(S):	MARPAT 144:462611			
GI				



AB Highly effective pest control compns. contain (1) pyrimidines (I, wherein R1 = H, alkyl; R2 = alkynyloxy; R3 = H, halo, alkyl; X1 = (un)substituted

polymethylene) or 1,2,4-thiadiazole derivs. such as 3-(2-pentynyloxy)-5-(3-methylpiperidino)-1,2,4-thiadiazole and (2) esfenvalerate as active components. Thus, 4-(2-butynyloxy)-5-fluoro-6-(3,3-dimethylpyrrolidin-1-yl)pyrimidine + Sumi-alpha emulsion at 12.5 + 1.5 ppm was more effective than the individual components at the same rates against *Aphis gossypii* on cucumber.

IT 886837-44-1 886837-46-3 886837-48-5

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
(as pesticide)

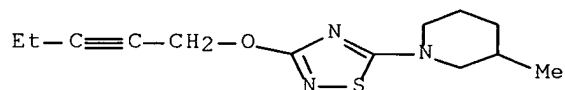
RN 886837-44-1 CAPLUS

CN Benzeneacetic acid, 4-chloro- α -(1-methylethyl)-,
(S)-cyano(3-phenoxyphenyl)methyl ester, (α S)-, mixt. with
3-methyl-1-[3-(2-pentynyloxy)-1,2,4-thiadiazol-5-yl]piperidine (9CI) (CA
INDEX NAME)

CM 1

CRN 850748-38-8

CMF C13 H19 N3 O S

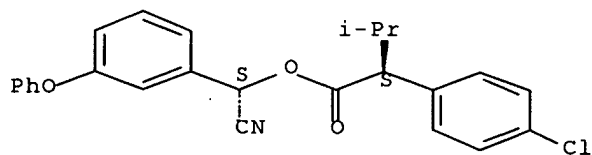


CM 2

CRN 66230-04-4

CMF C25 H22 Cl N O3

Absolute stereochemistry. Rotation (-).



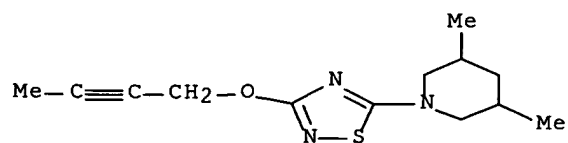
RN 886837-46-3 CAPLUS

CN Benzeneacetic acid, 4-chloro- α -(1-methylethyl)-,
(S)-cyano(3-phenoxyphenyl)methyl ester, (α S)-, mixt. with
1-[3-(2-butynyloxy)-1,2,4-thiadiazol-5-yl]-3,5-dimethylpiperidine (9CI)
(CA INDEX NAME)

CM 1

CRN 886757-59-1

CMF C13 H19 N3 O S

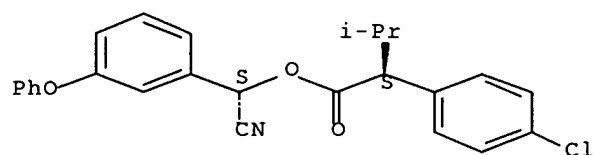


CM 2

CRN 66230-04-4

CMF C25 H22 Cl N O3

Absolute stereochemistry. Rotation (-).



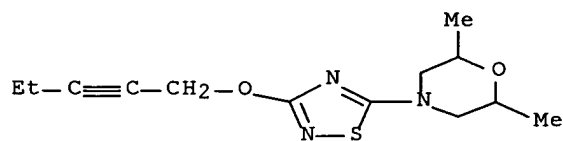
RN 886837-48-5 CAPLUS

CN Benzeneacetic acid, 4-chloro- α -(1-methylethyl)-,
 (S)-cyano(3-phenoxyphenyl)methyl ester, (α S)-, mixt. with
 2,6-dimethyl-4-[3-(2-pentynyloxy)-1,2,4-thiadiazol-5-yl]morpholine (9CI)
 (CA INDEX NAME)

CM 1

CRN 886757-61-5

CMF C13 H19 N3 O2 S

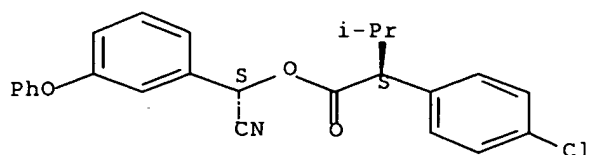


CM 2

CRN 66230-04-4

CMF C25 H22 Cl N O3

Absolute stereochemistry. Rotation (-).



L12 ANSWER 12 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:489267 CAPLUS Full-text

DOCUMENT NUMBER: 144:462610

TITLE: Pest control compositions containing spiromesifen and pyrimidines or thiadiazoles

INVENTOR(S): Shimokawatoko, Yasutaka; Yamada, Koji

PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 45 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

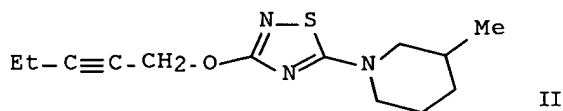
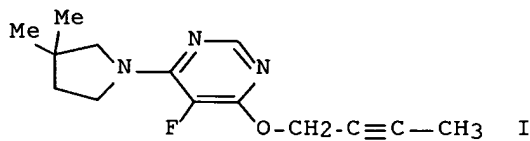
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006131531	A	20060525	JP 2004-321489	20041105
PRIORITY APPLN. INFO.:			JP 2004-321489	20041105
OTHER SOURCE(S):	MARPAT	144:462610		

GI



AB Compns. with excellent pest control effect contain (1) a pyrimidine derivative (e.g., I) or a 1,2,4-thiadiazole (e.g., II) and (2) 3-mesityl-2-oxo-1-oxaspiro[4.4]non-3-en-4-yl 3,3-dimethylbutylate (spiromesifen). Thus, I + spiromesifen at 0.15 + 6.3 ppm was more effective than the individual components at the same rates against Bemisia argentifolii on cabbage.

IT 886843-47-6 886843-48-7 886843-49-8

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
(as pesticide)

RN 886843-47-6 CAPLUS

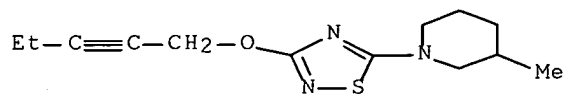
CN Butanoic acid, 3,3-dimethyl-, 2-oxo-3-(2,4,6-trimethylphenyl)-1-oxaspiro[4.4]non-3-en-4-yl ester, mixt. with 3-methyl-1-[3-(2-pentynyloxy)-

1,2,4-thiadiazol-5-yl]piperidine (9CI) (CA INDEX NAME)

CM 1

CRN 850748-38-8

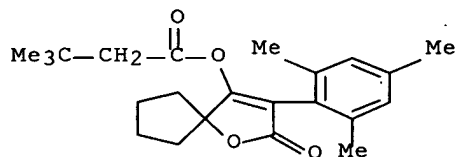
CMF C13 H19 N3 O S



CM 2

CRN 283594-90-1

CMF C23 H30 O4



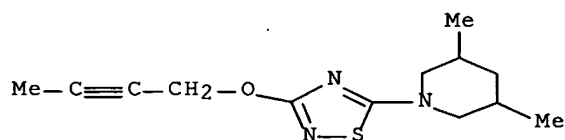
RN 886843-48-7 CAPLUS

CN Butanoic acid, 3,3-dimethyl-, 2-oxo-3-(2,4,6-trimethylphenyl)-1-oxaspiro[4.4]non-3-en-4-yl ester, mixt. with 1-[3-(2-butynyloxy)-1,2,4-thiadiazol-5-yl]-3,5-dimethylpiperidine (9CI) (CA INDEX NAME)

CM 1

CRN 886757-59-1

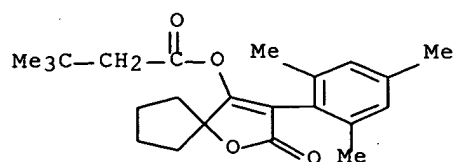
CMF C13 H19 N3 O S



CM 2

CRN 283594-90-1

CMF C23 H30 O4



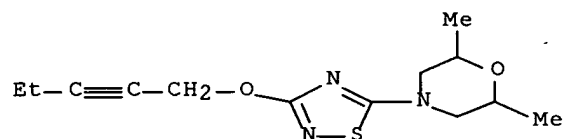
RN 886843-49-8 CAPLUS

CN Butanoic acid, 3,3-dimethyl-, 2-oxo-3-(2,4,6-trimethylphenyl)-1-oxaspiro[4.4]non-3-en-4-yl ester, mixt. with 2,6-dimethyl-4-[3-(2-pentynyloxy)-1,2,4-thiadiazol-5-yl]morpholine (9CI) (CA INDEX NAME)

CM 1

CRN 886757-61-5

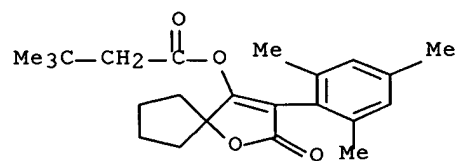
CMF C13 H19 N3 O2 S



CM 2

CRN 283594-90-1

CMF C23 H30 O4



L12 ANSWER 13 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:489264 CAPLUS Full-text

DOCUMENT NUMBER: 144:462609

TITLE: Pest control compositions containing acephate and pyrimidines or thiadiazoles

INVENTOR(S): Shimokawatoko, Yasutaka; Yamada, Koji

PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 44 pp.

CODEN: JKXXAF

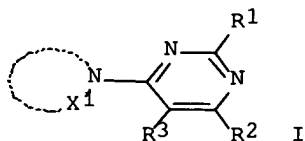
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006131540	A	20060525	JP 2004-321498	20041105
PRIORITY APPLN. INFO.:			JP 2004-321498	20041105
OTHER SOURCE(S):	MARPAT 144:462609			
GI				



AB Pest control compns. with excellent efficacy contain (1) a pyrimidine (I, wherein R1 = H, alkyl; R2 = alkynyloxy; R3 = H, halo, alkyl; X1 = (un)substituted C4-7 polymethylene) or a thiadiazole such as 3-(2-pentynyloxy)-5-(3-methylpiperidino)-1,2,4-thiadiazole and (2) O,S-di-Me acetylphosphoramidothioate (acephate). Thus, 4-(2-butynyloxy)-5-fluoro-6-(3,3-dimethylpyrrolidin-1-yl)pyrimidine + Ortran (500 + 500 ppm) gave almost 100% control of *Aphis gossypii* on cucumber.

IT 886973-61-1 886973-62-2 886973-63-3

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
(as pesticide)

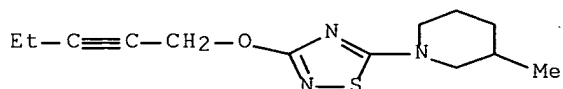
RN 886973-61-1 CAPLUS

CN Phosphoramidothioic acid, acetyl-, O,S-dimethyl ester, mixt. with 3-methyl-1-[3-(2-pentynyloxy)-1,2,4-thiadiazol-5-yl]piperidine (9CI) (CA INDEX NAME)

CM 1

CRN 850748-38-8

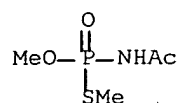
CMF C13 H19 N3 O S



CM 2

CRN 30560-19-1

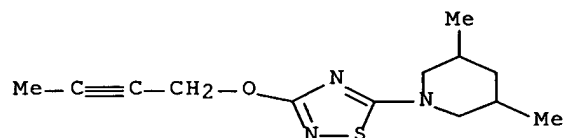
CMF C4 H10 N O3 P S



RN 886973-62-2 CAPLUS
 CN Phosphoramidothioic acid, acetyl-, O,S-dimethyl ester, mixt. with
 1-[3-(2-butynyloxy)-1,2,4-thiadiazol-5-yl]-3,5-dimethylpiperidine (9CI)
 (CA INDEX NAME)

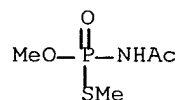
CM 1

CRN 886757-59-1
 CMF C13 H19 N3 O S



CM 2

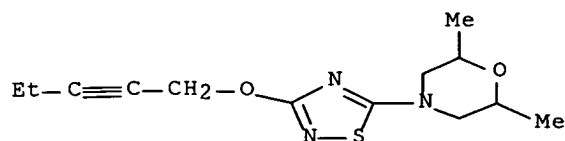
CRN 30560-19-1
 CMF C4 H10 N O3 P S



RN 886973-63-3 CAPLUS
 CN Phosphoramidothioic acid, acetyl-, O,S-dimethyl ester, mixt. with
 2,6-dimethyl-4-[3-(2-pentynyloxy)-1,2,4-thiadiazol-5-yl]morpholine (9CI)
 (CA INDEX NAME)

CM 1

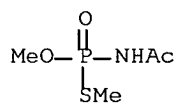
CRN 886757-61-5
 CMF C13 H19 N3 O2 S



CM 2

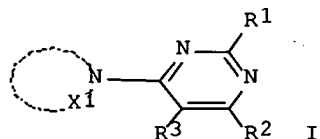
CRN 30560-19-1

CMF C4 H10 N O3 P S



L12 ANSWER 14 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2006:489232 CAPLUS Full-text
 DOCUMENT NUMBER: 144:462608
 TITLE: Pest. control compositions containing clothianidin and pyrimidines or thiadiazoles
 INVENTOR(S): Shimokawatoko, Yasutaka; Yamada, Koji
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 47 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006131534	A	20060525	JP 2004-321492	20041105
PRIORITY APPLN. INFO.:			JP 2004-321492	20041105
OTHER SOURCE(S):	MARPAT 144:462608			
GI				



AB Pest control compns. with superior efficacy contain (1) a pyrimidine compound (I, wherein R1 = H, alkyl; R2 = alkynyloxy; R3 = H, halo, alkyl; X1 =

(un)substituted C4-7 polymethylene) or a 1,2,4-thiadiazole derivative such as 3-(2-pentynyloxy)-5-(3-methylpiperidino)-1,2,4-thiadiazole and (2) clothianidin as active components. Thus, 4-(2-butynyloxy)-5-fluoro-6-(3,3-dimethylpyrrolidin-1-yl)pyrimidine + clothianidin at 12.5 + 0.025 ppm was more effective than the individual components at the same rates against *Aphis gossypii* on cucumber.

IT 886758-19-6 886758-20-9 886758-21-0

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
(as pesticide)

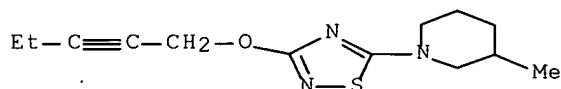
RN 886758-19-6 CAPLUS

CN Guanidine, N-[(2-chloro-5-thiazolyl)methyl]-N'-methyl-N''-nitro-, [C(E)]-, mixt. with 3-methyl-1-[3-(2-pentynyloxy)-1,2,4-thiadiazol-5-yl]piperidine (9CI) (CA INDEX NAME)

CM 1

CRN 850748-38-8

CMF C13 H19 N3 O S

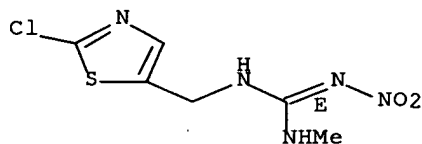


CM 2

CRN 210880-92-5

CMF C6 H8 Cl N5 O2 S

Double bond geometry as shown.



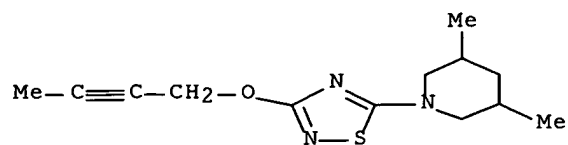
RN 886758-20-9 CAPLUS

CN Guanidine, N-[(2-chloro-5-thiazolyl)methyl]-N'-methyl-N''-nitro-, [C(E)]-, mixt. with 1-[3-(2-butynyloxy)-1,2,4-thiadiazol-5-yl]-3,5-dimethylpiperidine (9CI) (CA INDEX NAME)

CM 1

CRN 886757-59-1

CMF C13 H19 N3 O S

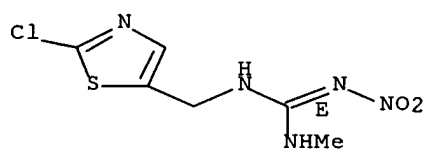


CM 2

CRN 210880-92-5

CMF C6 H8 Cl N5 O2 S

Double bond geometry as shown.



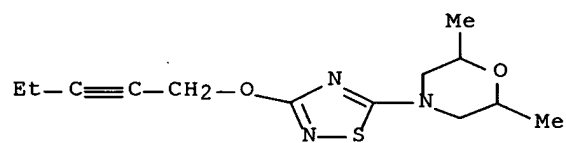
RN 886758-21-0 CAPLUS

CN Guanidine, N-[(2-chloro-5-thiazolyl)methyl]-N'-methyl-N''-nitro-, [C(E)]-,
 mixt. with 2,6-dimethyl-4-[3-(2-pentynyloxy)-1,2,4-thiadiazol-5-yl]morpholine (9CI) (CA INDEX NAME)

CM 1

CRN 886757-61-5

CMF C13 H19 N3 O2 S

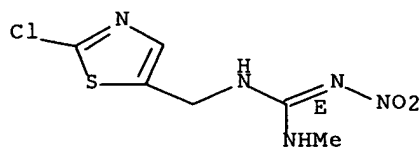


CM 2

CRN 210880-92-5

CMF C6 H8 Cl N5 O2 S

Double bond geometry as shown.



L12 ANSWER 15 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:489228 CAPLUS Full-text

DOCUMENT NUMBER: 144:462607

TITLE: Pesticides containing buprofezin and a pyrimidine or thiadiazole derivative

INVENTOR(S): Shimokawatoko, Yasutaka; Yamada, Koji

PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 45 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

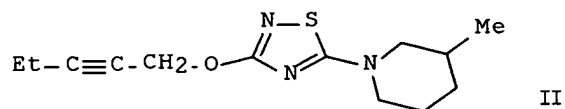
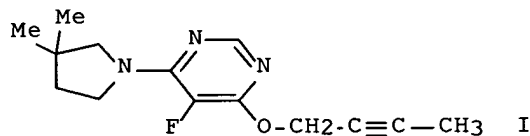
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP. 2006131527	A	20060525	JP 2004-321485	20041105
PRIORITY APPLN. INFO.:			JP 2004-321485	20041105
OTHER SOURCE(S):	MARPAT	144:462607		

GI



AB Compns. with excellent pest control effect comprise (1) a pyrimidine compound (e.g., I) or a 1,2,4-thiadiazole compound (e.g., II) and (2) buprofezin. Thus, I + buprofezin at 0.15 + 3.1 ppm showed greater control of Bemisia argentifolii on cabbage than the individual components at the same resp. rates.

IT 886842-21-3 886842-22-4 886842-23-5

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
(as pesticide)

RN 886842-21-3 CAPLUS

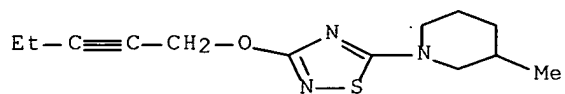
CN 4H-1,3,5-Thiadiazin-4-one, 2-[(1,1-dimethylethyl)imino]tetrahydro-3-(1-methylethyl)-5-phenyl-, mixt. with 3-methyl-1-[3-(2-pentyloxy)-1,2,4-

thiadiazol-5-yl]piperidine (9CI) (CA INDEX NAME)

CM 1

CRN 850748-38-8

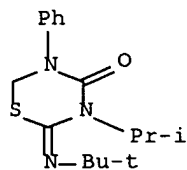
CMF C13 H19 N3 O S



CM 2

CRN 69327-76-0

CMF C16 H23 N3 O S



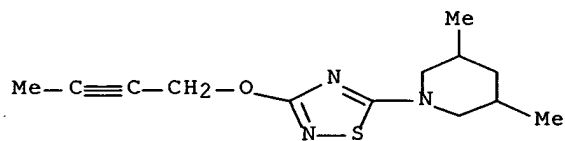
RN 886842-22-4 CAPLUS

CN 4H-1,3,5-Thiadiazin-4-one, 2-[(1,1-dimethylethyl)imino]tetrahydro-3-(1-methylethyl)-5-phenyl-, mixt. with 1-[3-(2-butynyloxy)-1,2,4-thiadiazol-5-yl]-3,5-dimethylpiperidine (9CI) (CA INDEX NAME)

CM 1

CRN 886757-59-1

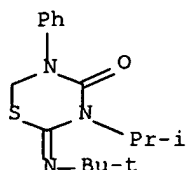
CMF C13 H19 N3 O S



CM 2

CRN 69327-76-0

CMF C16 H23 N3 O S



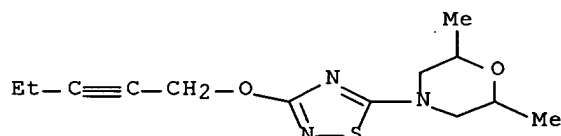
RN 886842-23-5 CAPLUS

CN 4H-1,3,5-Thiadiazin-4-one, 2-[(1,1-dimethylethyl)imino]tetrahydro-3-(1-methylethyl)-5-phenyl-, mixt. with 2,6-dimethyl-4-[3-(2-pentynyloxy)-1,2,4-thiadiazol-5-yl]morpholine (9CI) (CA INDEX NAME)

CM 1

CRN 886757-61-5

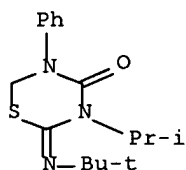
CMF C13 H19 N3 O2 S



CM 2

CRN 69327-76-0

CMF C16 H23 N3 O S



L12 ANSWER 16 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:489226 CAPLUS Full-text

DOCUMENT NUMBER: 144:462606

TITLE: Pest control compositions containing pymetrozine and pyrimidines or thiadiazoles

INVENTOR(S): Shimokawatoko, Yasutaka; Yamada, Koji

PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 45 pp.

CODEN: JKXXAF

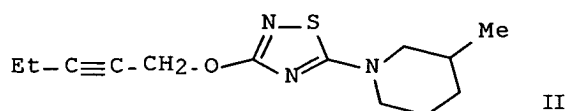
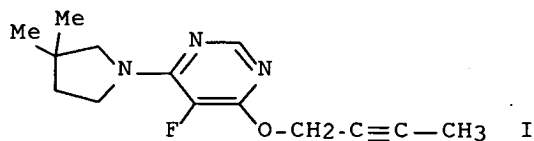
DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006131529	A	20060525	JP 2004-321487	20041105
PRIORITY APPLN. INFO.:			JP 2004-321487	20041105
OTHER SOURCE(S):		MARPAT 144:462606		
GI				



AB Pest control compns. with excellent effect contain (1) a pyrimidine compound (e.g., I) or a 1,2,4-thiadiazole derivative (e.g., II) and (2) (E)-4,5-dihydro-6-methyl-4-[(3-pyridylmethylene)amino]-1,2,4-triazin-3(2H)-one (pymetrozine) as active components. Thus, I + pymetrozine at 12.5 + 0.1 ppm gave better control of *Aphis gossypii* on cucumber than did the individual components at the same resp. rates.

IT 886842-10-0 886842-11-1 886842-12-2

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
(as pesticide)

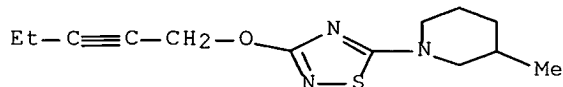
RN 886842-10-0 CAPLUS

CN 1,2,4-Triazin-3(2H)-one, 4,5-dihydro-6-methyl-4-[(E)-(3-pyridinylmethylene)amino]-, mixt. with 3-methyl-1-[3-(2-pentynyloxy)-1,2,4-thiadiazol-5-yl]piperidine (9CI) (CA INDEX NAME)

CM 1

CRN 850748-38-8

CMF C13 H19 N3 O S

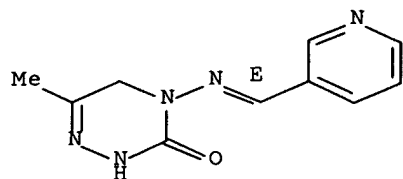


CM 2

CRN 123312-89-0

CMF C10 H11 N5 O

Double bond geometry as shown.



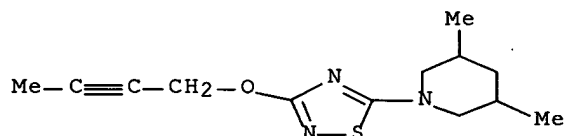
RN 886842-11-1 CAPLUS

CN 1,2,4-Triazin-3(2H)-one, 4,5-dihydro-6-methyl-4-[(E)-(3-pyridinylmethylene)amino]-, mixt. with 1-[3-(2-butynyloxy)-1,2,4-thiadiazol-5-yl]-3,5-dimethylpiperidine (9CI) (CA INDEX NAME)

CM 1

CRN 886757-59-1

CMF C13 H19 N3 O S

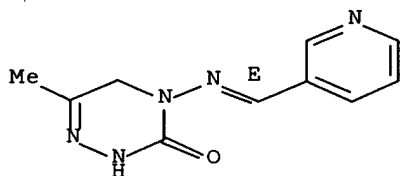


CM 2

CRN 123312-89-0

CMF C10 H11 N5 O

Double bond geometry as shown.



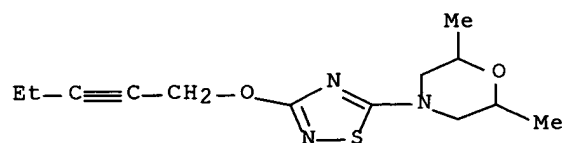
RN 886842-12-2 CAPLUS

CN 1,2,4-Triazin-3(2H)-one, 4,5-dihydro-6-methyl-4-[(E)-(3-pyridinylmethylene)amino]-, mixt. with 2,6-dimethyl-4-[3-(2-pentynyloxy)-1,2,4-thiadiazol-5-yl]morpholine (9CI) (CA INDEX NAME)

CM 1

CRN 886757-61-5

CMF C13 H19 N3 O2 S

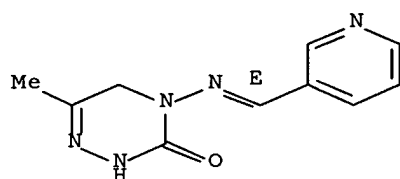


CM 2

CRN 123312-89-0

CMF C10 H11 N5 O

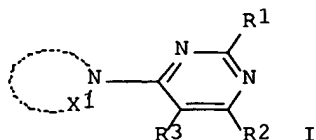
Double bond geometry as shown.



L12 ANSWER 17 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2006:489222 CAPLUS Full-text
 DOCUMENT NUMBER: 144:462605
 TITLE: Pesticides containing flonicamid and pyrimidine or
 thiadiazole derivative
 INVENTOR(S): Shimokawatoko, Yasutaka; Yamada, Koji
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 45 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2006131526	A	20060525	JP 2004-321484	20041105
PRIORITY APPLN. INFO.:			JP 2004-321484	20041105
OTHER SOURCE(S):	MARPAT	144:462605		

GI



AB Compns. with excellent pest control effect contain (1) a pyrimidine derivative (I, where R1 and R3 = H, etc.; R2 = C3-7 alkynyloxy; X1 = C4-7 polymethylene, etc.) or a 1,2,4-thiadiazole derivative (e.g., 3-(2-pentynyloxy)-5-(3-methylpiperidino)-1,2,4-thiadiazole) and (2) flonicamid as active components. Thus, 4-(2-butynyloxy)-5-fluoro-6-(3,3-dimethylpyrrolidin-1-yl)pyrimidine + flonicamid at 6.3 + 0.8 ppm was more effective than the individual components at the same rates against *Aphis gossypii* on cucumber.

IT 886843-94-3 886843-95-4 886843-96-5

RL: AGR (Agricultural use); BSU (Biological study, unclassified); BIOL (Biological study); USES (Uses)
(as pesticide)

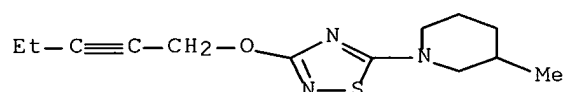
RN 886843-94-3 CAPLUS

CN 3-Pyridinecarboxamide, N-(cyanomethyl)-4-(trifluoromethyl)-, mixt. with 3-methyl-1-[3-(2-pentynyloxy)-1,2,4-thiadiazol-5-yl]piperidine (9CI) (CA INDEX NAME)

CM 1

CRN 850748-38-8

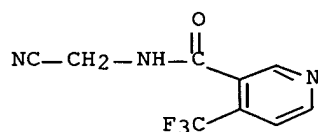
CMF C13 H19 N3 O S



CM 2

CRN 158062-67-0

CMF C9 H6 F3 N3 O



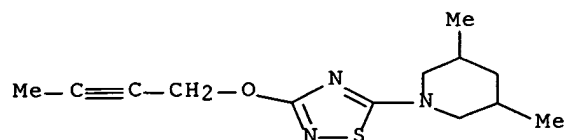
RN 886843-95-4 CAPLUS

CN 3-Pyridinecarboxamide, N-(cyanomethyl)-4-(trifluoromethyl)-, mixt. with 1-[3-(2-butynyloxy)-1,2,4-thiadiazol-5-yl]-3,5-dimethylpiperidine (9CI) (CA INDEX NAME)

CM 1

CRN 886757-59-1

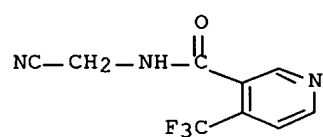
CMF C13 H19 N3 O S



CM 2

CRN 158062-67-0

CMF C9 H6 F3 N3 O



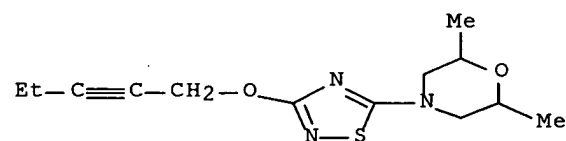
RN 886843-96-5 CAPLUS

CN 3-Pyridinecarboxamide, N-(cyanomethyl)-4-(trifluoromethyl)-, mixt. with
2,6-dimethyl-4-[3-(2-pentynyloxy)-1,2,4-thiadiazol-5-yl]morpholine (9CI)
(CA INDEX NAME)

CM 1

CRN 886757-61-5

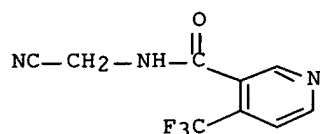
CMF C13 H19 N3 O2 S



CM 2

CRN 158062-67-0

CMF C9 H6 F3 N3 O



L12 ANSWER 18 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2006:34718 CAPLUS Full-text

DOCUMENT NUMBER: 144:108364

TITLE: Preparation of 1-(1-oxo-2-propynyl)piperazines as mGluR5 receptor modulators for the treatment of pain

INVENTOR(S): Kuehnert, Sven; Oberboersch, Stefan; Haurand, Michael; Jostock, Ruth; Schiene, Klaus

PATENT ASSIGNEE(S): Gruenthal GmbH, Germany

SOURCE: PCT Int. Appl., 208 pp.

CODEN: PIXXD2

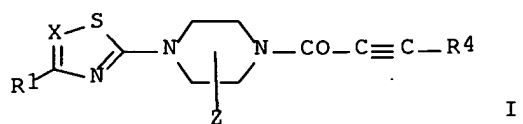
DOCUMENT TYPE: Patent

LANGUAGE: German

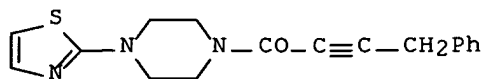
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2006002981	A1	20060112	WO 2005-EP7248	20050705
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
DE 102004032567	A1	20060302	DE 2004-102004032567	20040705
CA 2572685	A1	20060112	CA 2005-2572685	20050705
EP 1765816	A1	20070328	EP 2005-756539	20050705
R: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR				
US 2007112011	A1	20070517	US 2007-649156	20070104
US 7300939	B2	20071127		
PRIORITY APPLN. INFO.:			DE 2004-102004032567A	20040705
			WO 2005-EP7248	W 20050705
OTHER SOURCE(S):			CASREACT 144:108364; MARPAT 144:108364	
GI				



I



II

AB Title compds. I [Z = (R3)_n; X = N, CR₂; R₁, R₂ = H, halo, NO₂, etc.; R₃ = halo, NO₂, CN, etc.; R₄ = H, halo, NO₂, etc.] and their pharmaceutically acceptable salts were prepared. For example, coupling of 4-phenyl-2-butynoic acid and 1-thiazol-2-ylpiperazine afforded claimed propynylpiperazine II in 79% yield. In mGluR5 receptor binding assays, propynylpiperazine III exhibited an IC₅₀ value of 100 nM.

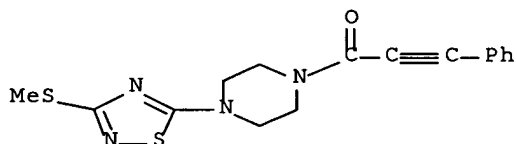
IT 873073-78-0P 873073-80-4P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of 1-(1-oxo-2-propynyl)piperazines as mGluR5 receptor modulators for the treatment of pain)

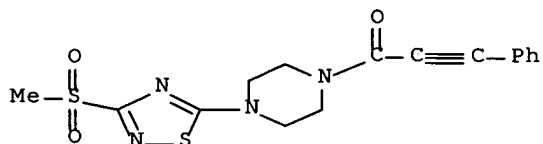
RN 873073-78-0 CAPLUS

CN Piperazine, 1-[3-(methylthio)-1,2,4-thiadiazol-5-yl]-4-(1-oxo-3-phenyl-2-propynyl)- (9CI) (CA INDEX NAME)



RN 873073-80-4 CAPLUS

CN Piperazine, 1-[3-(methylsulfonyl)-1,2,4-thiadiazol-5-yl]-4-(1-oxo-3-phenyl-2-propynyl)- (9CI) (CA INDEX NAME)



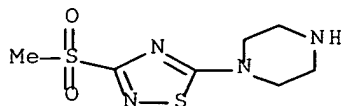
IT 873075-56-0, 1-(3-Methylsulfonyl-[1,2,4]thiadiazol-5-yl)piperazine

RL: RCT (Reactant); RACT (Reactant or reagent)

(preparation of 1-(1-oxo-2-propynyl)piperazines as mGluR5 receptor modulators for the treatment of pain)

RN 873075-56-0 CAPLUS

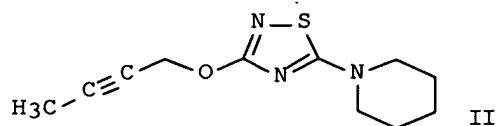
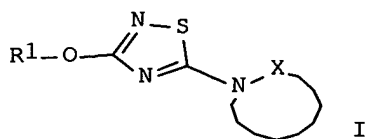
CN Piperazine, 1-[3-(methylsulfonyl)-1,2,4-thiadiazol-5-yl]- (CA INDEX NAME)



REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 19 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2005:371234 CAPLUS Full-text
 DOCUMENT NUMBER: 142:430280
 TITLE: Preparation of 1,2,4-thiadiazole compounds
 as pests controlling agents
 INVENTOR(S): Ihara, Hideki; Takaoka, Daisuke;
 Mizuno, Hajime
 PATENT ASSIGNEE(S): Sumitomo Chemical Company, Limited, Japan
 SOURCE: PCT Int. Appl., 55 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: English
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005037805	A2	20050428	WO 2004-JP14540	20040927
WO 2005037805	A3	20071122		
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, AP, EA, EP, OA			
AU 2004282018	A1	20050428	AU 2004-282018	20040927
BR 2004015364	A	20061212	BR 2004-15364	20040927
EP 1765798	A2	20070328	EP 2004-773569	20040927
R:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LI, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR			
JP 2005139171	A	20050602	JP 2004-297325	20041012
US 2007004722	A1	20070104	US 2006-567984	20060210
MX 2006PA04118	A	20060705	MX 2006-PA4118	20060411
IN 2006CN01272	A	20070629	IN 2006-CN1272	20060413
PRIORITY APPLN. INFO.:			JP 2003-354758	A 20031015
			WO 2004-JP14540	W 20040927
OTHER SOURCE(S):		CASREACT 142:430280; MARPAT 142:430280		
GI				



AB Title compds. I [R1 = alkynyl; X = (un)substituted straight alkylene, (un)substituted straight alkenylene, (un)substituted ethylene-oxyethylene, etc.] were prepared For example, aromatic nucleophilic substitution of 5-chloro-3-methylthio-1,2,4-thiadiazole with pyrrolidine followed by oxidation using 3-chloroperbenzoic acid and treatment with 2-butyne-1-ol afforded 3-(2-butynyloxy)-5-(pyrrolidin-1-yl)-1,2,4- thiadiazole. In pest controlling test against aphid gossypii, compound II had the control value of $\geq 90\%$. Compds. I are claimed useful as pests controlling agents. Formulations are given.

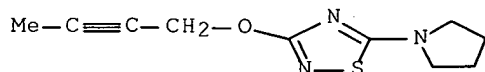
IT 850748-31-1P 850748-32-2P 850748-33-3P
 850748-34-4P 850748-35-5P 850748-36-6P
 850748-37-7P 850748-38-8P 850748-39-9P
 850748-40-2P 850748-41-3P 850748-42-4P
 850748-43-5P 850748-44-6P 850748-45-7P
 850748-46-8P 850748-47-9P 850748-48-0P
 850748-49-1P 850748-50-4P 850748-51-5P
 850748-52-6P 850748-53-7P 850748-54-8P
 850748-55-9P 850748-56-0P 850748-57-1P
 850748-58-2P

RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of 1,2,4-thiadiazole compds. as pests controlling agents)

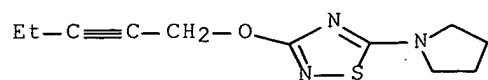
RN 850748-31-1 CAPLUS

CN 1,2,4-Thiadiazole, 3-(2-butynyloxy)-5-(1-pyrrolidinyl)- (9CI) (CA INDEX NAME)



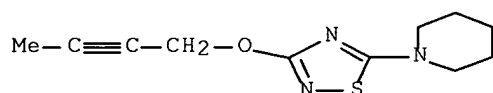
RN 850748-32-2 CAPLUS

CN 1,2,4-Thiadiazole, 3-(2-pentynyloxy)-5-(1-pyrrolidinyl)- (9CI) (CA INDEX NAME)



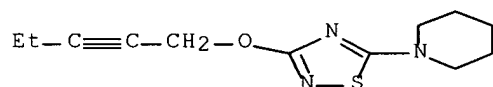
RN 850748-33-3 CAPLUS

CN Piperidine, 1-[3-(2-butynyloxy)-1,2,4-thiadiazol-5-yl]- (9CI) (CA INDEX NAME)



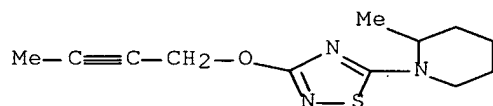
RN 850748-34-4 CAPLUS

CN Piperidine, 1-[3-(2-pentynyloxy)-1,2,4-thiadiazol-5-yl]- (9CI) (CA INDEX NAME)



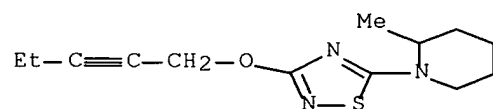
RN 850748-35-5 CAPLUS

CN Piperidine, 1-[3-(2-butynyloxy)-1,2,4-thiadiazol-5-yl]-2-methyl- (9CI) (CA INDEX NAME)



RN 850748-36-6 CAPLUS

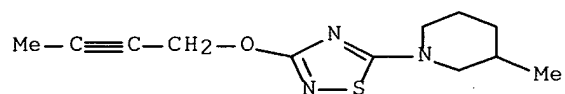
CN Piperidine, 2-methyl-1-[3-(2-pentynyloxy)-1,2,4-thiadiazol-5-yl]- (9CI) (CA INDEX NAME)



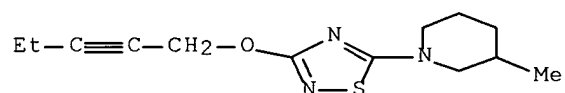
RN 850748-37-7 CAPLUS

CN Piperidine, 1-[3-(2-butynyloxy)-1,2,4-thiadiazol-5-yl]-3-methyl- (9CI)

(CA INDEX NAME)

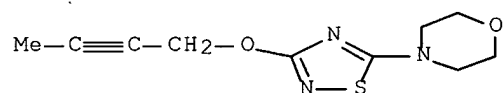


RN 850748-38-8 CAPLUS

CN Piperidine, 3-methyl-1-[3-(2-pentynyloxy)-1,2,4-thiadiazol-5-yl]- (9CI)
(CA INDEX NAME)

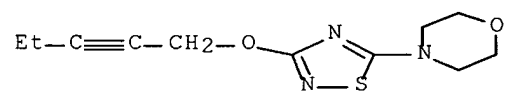
RN 850748-39-9 CAPLUS

CN Morpholine, 4-[3-(2-butynyloxy)-1,2,4-thiadiazol-5-yl]- (9CI) (CA INDEX NAME)

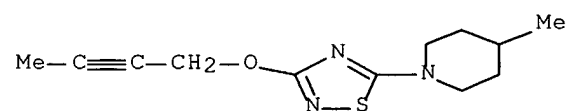


RN 850748-40-2 CAPLUS

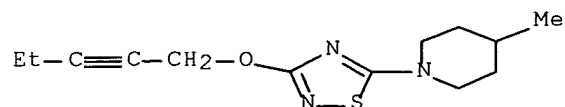
CN Morpholine, 4-[3-(2-pentynyloxy)-1,2,4-thiadiazol-5-yl]- (9CI) (CA INDEX NAME)



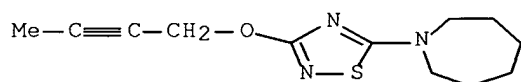
RN 850748-41-3 CAPLUS

CN Piperidine, 1-[3-(2-butynyloxy)-1,2,4-thiadiazol-5-yl]-4-methyl- (9CI)
(CA INDEX NAME)

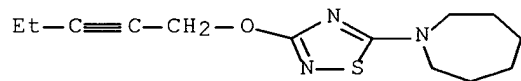
RN 850748-42-4 CAPLUS

CN Piperidine, 4-methyl-1-[3-(2-pentynyloxy)-1,2,4-thiadiazol-5-yl]- (9CI)
(CA INDEX NAME)

RN 850748-43-5 CAPLUS

CN 1H-Azepine, 1-[3-(2-butynyloxy)-1,2,4-thiadiazol-5-yl]hexahydro- (9CI)
(CA INDEX NAME)

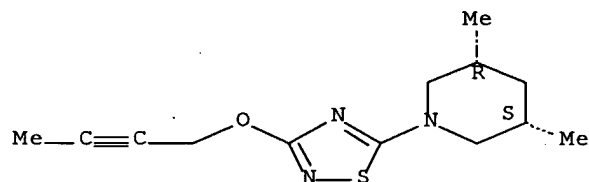
RN 850748-44-6 CAPLUS

CN 1H-Azepine, hexahydro-1-[3-(2-pentynyloxy)-1,2,4-thiadiazol-5-yl]- (9CI)
(CA INDEX NAME)

RN 850748-45-7 CAPLUS

CN Piperidine, 1-[3-(2-butynyloxy)-1,2,4-thiadiazol-5-yl]-3,5-dimethyl-,
(3R,5S)-rel- (9CI) (CA INDEX NAME)

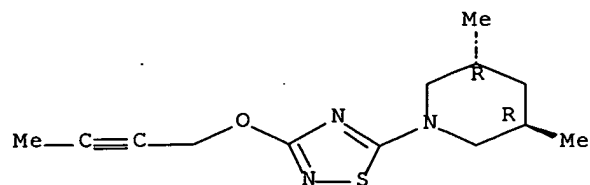
Relative stereochemistry.



RN 850748-46-8 CAPLUS

CN Piperidine, 1-[3-(2-butynyloxy)-1,2,4-thiadiazol-5-yl]-3,5-dimethyl-,
(3R,5R)-rel- (9CI) (CA INDEX NAME)

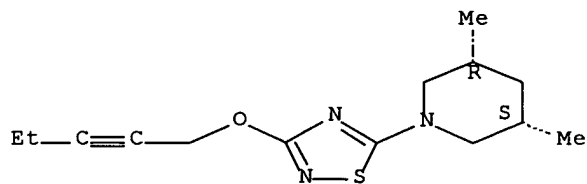
Relative stereochemistry.



RN 850748-47-9 CAPLUS

CN Piperidine, 3,5-dimethyl-1-[3-(2-pentynyloxy)-1,2,4-thiadiazol-5-yl]-, (3R,5S)-rel- (9CI) (CA INDEX NAME)

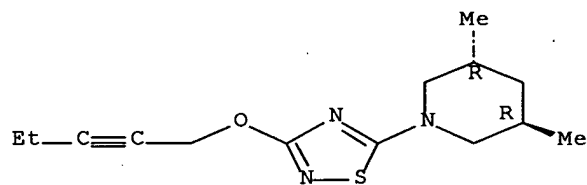
Relative stereochemistry.



RN 850748-48-0 CAPLUS

CN Piperidine, 3,5-dimethyl-1-[3-(2-pentynyloxy)-1,2,4-thiadiazol-5-yl]-, (3R,5R)-rel- (9CI) (CA INDEX NAME)

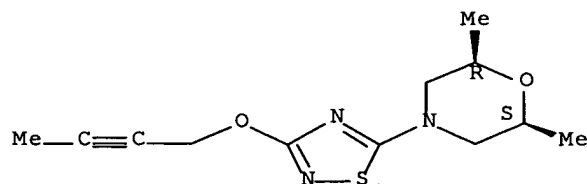
Relative stereochemistry.



RN 850748-49-1 CAPLUS

CN Morpholine, 4-[3-(2-butynyloxy)-1,2,4-thiadiazol-5-yl]-2,6-dimethyl-, (2R,6S)-rel- (9CI) (CA INDEX NAME)

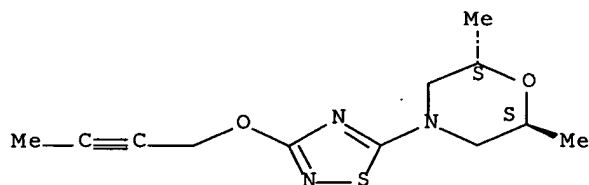
Relative stereochemistry.



RN 850748-50-4 CAPLUS

CN Morpholine, 4-[3-(2-butynyloxy)-1,2,4-thiadiazol-5-yl]-2,6-dimethyl-,
(2R,6R)-rel- (9CI) (CA INDEX NAME)

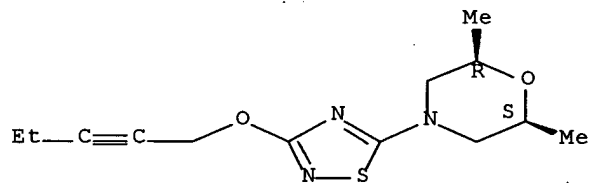
Relative stereochemistry.



RN 850748-51-5 CAPLUS

CN Morpholine, 2,6-dimethyl-4-[3-(2-pentynyloxy)-1,2,4-thiadiazol-5-yl]-,
(2R,6S)-rel- (9CI) (CA INDEX NAME)

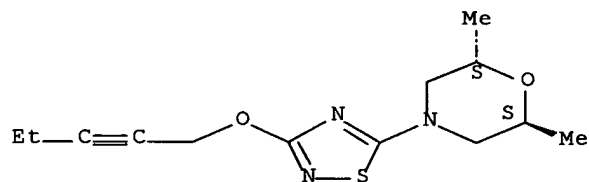
Relative stereochemistry.



RN 850748-52-6 CAPLUS

CN Morpholine, 2,6-dimethyl-4-[3-(2-pentynyloxy)-1,2,4-thiadiazol-5-yl]-,
(2R,6R)-rel- (9CI) (CA INDEX NAME)

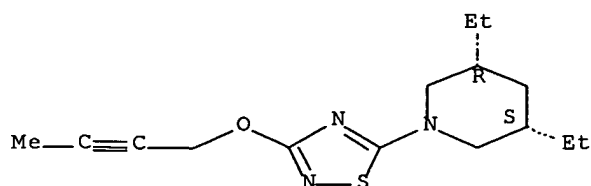
Relative stereochemistry.



RN 850748-53-7 CAPLUS

CN Piperidine, 1-[3-(2-butynyloxy)-1,2,4-thiadiazol-5-yl]-3,5-diethyl-,
(3R,5S)-rel- (9CI) (CA INDEX NAME)

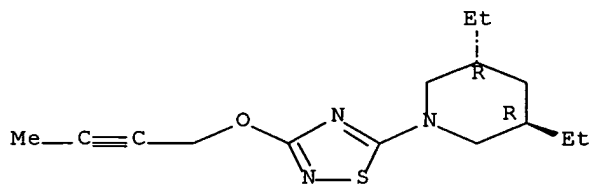
Relative stereochemistry.



RN 850748-54-8 CAPLUS

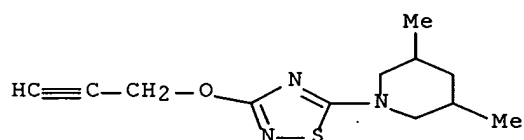
CN Piperidine, 1-[3-(2-butynyloxy)-1,2,4-thiadiazol-5-yl]-3,5-diethyl-,
(3R,5R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.



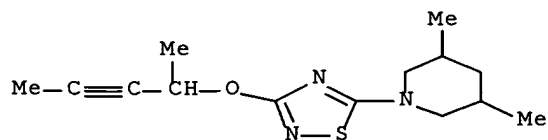
RN 850748-55-9 CAPLUS

CN Piperidine, 3,5-dimethyl-1-[3-(2-propynyloxy)-1,2,4-thiadiazol-5-yl]-
(9CI) (CA INDEX NAME)



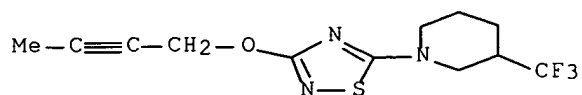
RN 850748-56-0 CAPLUS

CN Piperidine, 3,5-dimethyl-1-[3-[(1-methyl-2-butynyl)oxy]-1,2,4-thiadiazol-5-yl]-
(9CI) (CA INDEX NAME)



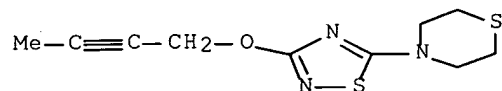
RN 850748-57-1 CAPLUS

CN Piperidine, 1-[3-(2-butynyloxy)-1,2,4-thiadiazol-5-yl]-3-(trifluoromethyl)-
(9CI) (CA INDEX NAME)



RN 850748-58-2 CAPLUS

CN Thiomorpholine, 4-[3-(2-butynyloxy)-1,2,4-thiadiazol-5-yl]- (9CI) (CA INDEX NAME)



IT 850748-59-3P 850748-60-6P 850748-61-7P

850748-62-8P 850748-63-9P 850748-64-0P

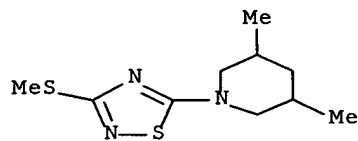
850748-65-1P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of 1,2,4-thiadiazole compds. as pests controlling agents)

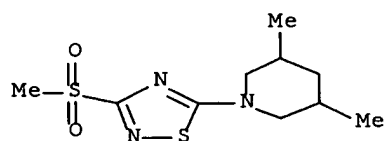
RN 850748-59-3 CAPLUS

CN Piperidine, 3,5-dimethyl-1-[3-(methylthio)-1,2,4-thiadiazol-5-yl]- (CA INDEX NAME)



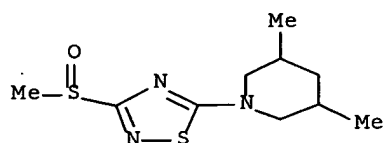
RN 850748-60-6 CAPLUS

CN Piperidine, 3,5-dimethyl-1-[3-(methylsulfonyl)-1,2,4-thiadiazol-5-yl]- (CA INDEX NAME)



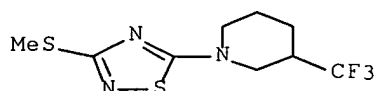
RN 850748-61-7 CAPLUS

CN Piperidine, 3,5-dimethyl-1-[3-(methylsulfinyl)-1,2,4-thiadiazol-5-yl]- (CA INDEX NAME)



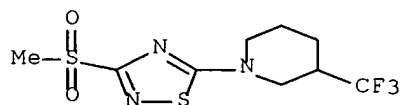
RN 850748-62-8 CAPLUS

CN Piperidine, 1-[3-(methylthio)-1,2,4-thiadiazol-5-yl]-3-(trifluoromethyl)-
(CA INDEX NAME)



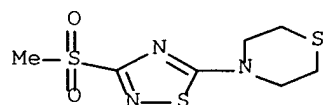
RN 850748-63-9 CAPLUS

CN Piperidine, 1-[3-(methylsulfonyl)-1,2,4-thiadiazol-5-yl]-3-(trifluoromethyl)-
(CA INDEX NAME)



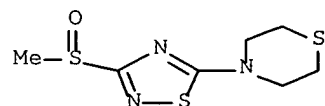
RN 850748-64-0 CAPLUS

CN Thiomorpholine, 4-[3-(methylsulfonyl)-1,2,4-thiadiazol-5-yl]- (CA INDEX NAME)



RN 850748-65-1 CAPLUS

CN Thiomorpholine, 4-[3-(methylsulfonyl)-1,2,4-thiadiazol-5-yl]- (CA INDEX NAME)



L12 ANSWER 20 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:182866 CAPLUS Full-text

DOCUMENT NUMBER: 140:236096

TITLE: Preparation of proline derivatives as antibacterial agents

INVENTOR(S): Fujita, Masahiro; Sakamoto, Masato; Horiuchi, Nobuhiko; Yamamoto, Takayoshi; Tomita, Kyoji; Mizuno, Kazuhiro; Niga, Toshiyuki; Ito, Hideaki; Kashimoto, Shigeki

PATENT ASSIGNEE(S): Dainippon Pharmaceutical Co., Ltd., Japan

SOURCE: PCT Int. Appl., 122 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

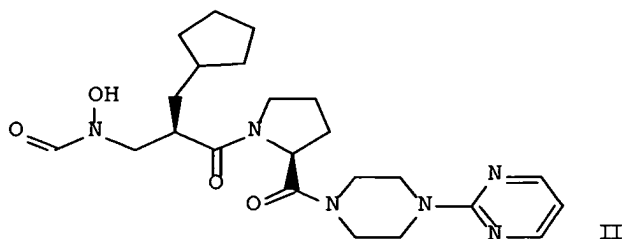
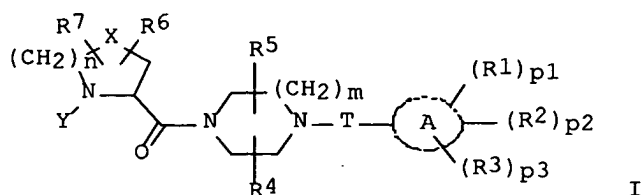
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004018453	A1	20040304	WO 2003-JP10548	20030821
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
JP 2006052138	A	20060223	JP 2002-242795	20020823
JP 2006052139	A	20060223	JP 2002-339200	20021122
JP 2006052140	A	20060223	JP 2003-27010	20030204
AU 2003257637	A1	20040311	AU 2003-257637	20030821
PRIORITY APPLN. INFO.:			JP 2002-242795	A 20020823
			JP 2002-339200	A 20021122
			JP 2003-27010	A 20030204
			WO 2003-JP10548	W 20030821

OTHER SOURCE(S): MARPAT 140:236096

GI



AB Proline derivs. represented by the general formula (I) or salts thereof [wherein A = a group derived from a 5- or 6-membered heterocycle which may be fused with an optionally halogenated benzene ring; p1, p2, p3 = 0, 1; R1, R2, R3 = H, lower alkoxy, lower alkylthio, halo, HO, (un)protected or (un)substituted NH2 or CONH2, hydroxy-lower alkylamino, CO2H, lower alkoxy, lower alkylsulfonyloxy, cyano; when p1 = p2 = 1, CR1R2 = CO; or when p1 = p2 = p3 = 1, R1 = R2 = H and R3 = a 5- or 6-membered saturated or unsatd. cyclic group; T = a single bond, CH2, CO; R4, R5 = H, lower alkyl; or CR4R5 = CO; n, m = 1, 2; R6, R7 = H, OH, halogeno, lower alkyl, Ph, lower alkoxy, phenyl-lower alkyl, (un)protected NH2; R6 and R7 together form a saturated cyclic group; X = CH2, CH, S, O; Y = H, an amino-protecting group, or a group represented by the general formula R9ON(CHO)CH2CH(R8)CO; wherein R8 = alkyl, cycloalkyl-lower alkyl; R9 = H, a hydroxyl-protecting group, etc.] are prepared These compds. are useful as antibacterial drugs against multidrug-resistant bacteria. Thus, (2R)-3-cyclopentyl-2-[[N-(2,4-dimethoxybenzyloxy)-N-formylamino]methyl]propionic acid was condensed with (2S)-2-[[4-(2-pyrimidinyl)-1-piperazinyl]carbonyl]pyrrolidine hydrochloride using 1-ethyl-3-(3-dimethylaminopropyl)carbodiimide hydrochloride, 1-hydroxybenzotriazole, and Et3N in CH2Cl2 at room temperature for 18 h to give 68% (2S)-1-[(2R)-3-cyclopentyl-2-[[N-(2,4-dimethoxybenzyloxy)-N-formylamino]methyl]propionyl]-2-[[4-(2-pyrimidinyl)-1-piperazinyl]carbonyl]pyrrolidine which was treated with 3% CF3CO2H in CH2Cl2 at room temperature for 17 h and then with saturated aqueous NaHCO3 under ice-cooling to give 77% (2S)-1-[(2R)-3-cyclopentyl-2-[(N-formyl-N-hydroxyamino)methyl]propionyl]-2-[[4-(2-pyrimidinyl)-1-piperazinyl]carbonyl]pyrrolidine (II). II showed min. inhibitory concentration of 0.25, 0.125, 0.03, 0.25, 0.5, 0.125, 1, 0.5, and 0.125 µg/mL against *Staphylococcus aureus* Smith, *S. aureus* KTO150 (MRSA), *S. epidermidis* ATCC12228, *Streptococcus pneumoniae* ATCC49619, *S. pneumoniae* KT2524 (PRSP), *S. pneumoniae* KB2534 (PRSP), *S. pyogenes* ATCC12344, *Enterococcus faecium* ATCC19434, and *Moraxella* (B.) *catarrhalis* K1209, resp.

IT 668483-33-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

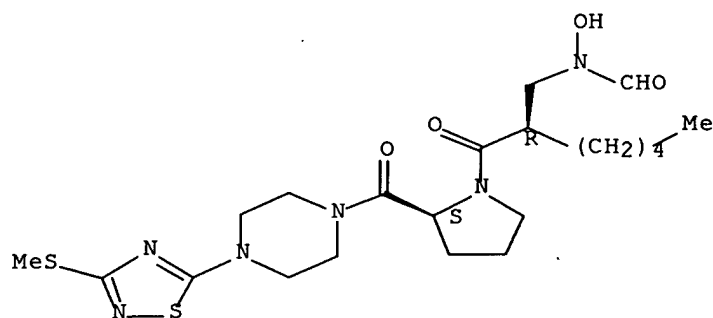
(preparation of proline derivs. as antibacterial agents against multidrug-resistant bacteria)

RN 668483-33-8 CAPLUS

CN Piperazine, 1-[(2R)-N-formyl-N-hydroxy-2-pentyl-β-alanyl-L-prolyl]-4-

[3-(methylthio)-1,2,4-thiadiazol-5-yl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



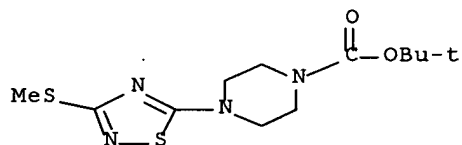
IT 668484-30-8P 668484-89-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of proline derivs. as antibacterial agents against multidrug-resistant bacteria)

RN 668484-30-8 CAPLUS

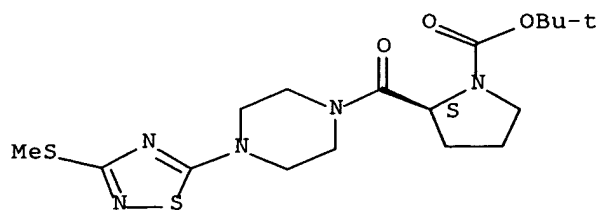
CN 1-Piperazinecarboxylic acid, 4-[3-(methylthio)-1,2,4-thiadiazol-5-yl]-, 1,1-dimethylethyl ester (CA INDEX NAME)



RN 668484-89-7 CAPLUS

CN 1-Pyrrolidinecarboxylic acid, 2-[[4-[3-(methylthio)-1,2,4-thiadiazol-5-yl]-1-piperazinyl]carbonyl]-, 1,1-dimethylethyl ester, (2S)- (CA INDEX NAME)

Absolute stereochemistry.



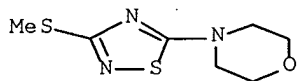
REFERENCE COUNT:

5

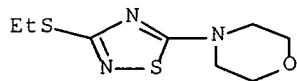
THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 21 OF 21 CAPLUS COPYRIGHT 2007 ACS on STN

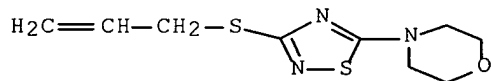
ACCESSION NUMBER: 1972:113135 CAPLUS Full-text
 DOCUMENT NUMBER: 76:113135
 ORIGINAL REFERENCE NO.: 76:18269a,18272a
 TITLE: Organic herbicides. V. Derivatives of
 3-mercapto-5-amino-1,2,4-thiadiazole
 AUTHOR(S): Zbirovsky, M.; Myska, J.; Stanek, J.
 CORPORATE SOURCE: Vysk. Sk. Chem. Technol., Prague, Czech.
 SOURCE: Collection of Czechoslovak Chemical Communications
 (1971), 36(12), 4087-91
 CODEN: CCCCAK; ISSN: 0010-0765
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 GI For diagram(s), see printed CA Issue.
 AB -MeS, 3-EtS, 3-allylthio, and 3-PhCH₂S, derivs. of 5-chloro-1,2,4- thiadiazole
 were refluxed in MeOH with MeNH₂, EtNH₂, iso-PrNH₂, BuNH₂, CH₂:CHCH₂NH₂,
 PhNH₂, piperidine, or morpholine to give 27 S3,N5-disubstituted-3-mercapto-5-
 amino-1,2,4-thiadiazoles (I) the herbicidal activity of which was too low for
 practical use.
 IT 35746-49-7P 35746-55-5P 35746-61-3P
 RL: SPN (Synthetic preparation); PREP (Preparation)
 (preparation of)
 RN 35746-49-7 CAPLUS
 CN Morpholine, 4-[3-(methylthio)-1,2,4-thiadiazol-5-yl]- (CA INDEX NAME)



RN 35746-55-5 CAPLUS
 CN Morpholine, 4-[3-(ethylthio)-1,2,4-thiadiazol-5-yl]- (CA INDEX NAME)

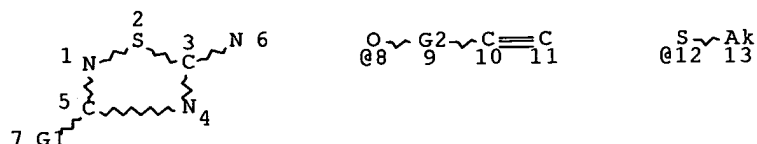


RN 35746-61-3 CAPLUS
 CN Morpholine, 4-[3-(2-propenylthio)-1,2,4-thiadiazol-5-yl]- (9CI) (CA INDEX NAME)



=> d que 113

L1 STR



VAR G1=8/12

REP G2=(0-10) C

NODE ATTRIBUTES:

NSPEC IS R AT 6

CONNECT IS E1 RC AT 13

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 13

STEREO ATTRIBUTES: NONE

L3 98 SEA FILE=REGISTRY SSS FUL L1

L4 21 SEA FILE=CAPLUS ABB=ON PLU=ON L3

L5 242 SEA FILE=CAPLUS ABB=ON PLU=ON ("IHARA H"/AU OR "IHARA
HIDEAKI"/AU OR "IHARA HIDEKI"/AU)L6 51 SEA FILE=CAPLUS ABB=ON PLU=ON ("TAKAOKA D"/AU OR "TAKAOKA
DAISUKE"/AU)L7 186 SEA FILE=CAPLUS ABB=ON PLU=ON ("MIZUNO H"/AU OR "MIZUNO
HAJIME"/AU)

L8 474 SEA FILE=CAPLUS ABB=ON PLU=ON (L5 OR L6 OR L7)

L9 6 SEA FILE=CAPLUS ABB=ON PLU=ON L8 AND THIA? AND ?AZOL?

L10 1 SEA FILE=CAPLUS ABB=ON PLU=ON L9 AND L4

L13 5 SEA FILE=CAPLUS ABB=ON PLU=ON L9 NOT L10

=> d 113 ibib abs tot

L13 ANSWER 1 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:453198 CAPLUS Full-text

DOCUMENT NUMBER: 141:23538

TITLE: 1,2,4-Thiadiazole compounds, their
preparation, their use as pesticides, and
arthropod-controlling compositions containing them

INVENTOR(S): Ihara, Hideki; Takaoka, Daisuke

PATENT ASSIGNEE(S): Sumitomo Chemical Company, Limited, Japan

SOURCE: PCT Int. Appl., 47 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

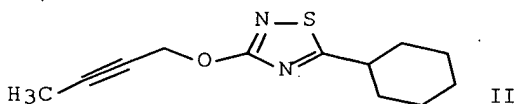
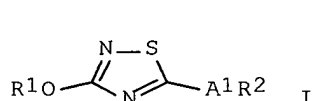
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004046125	A1	20040603	WO 2003-JP13750	20031028
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE,				

GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KR, KZ, LC, LK, LR, LS,
 LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG,
 PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR,
 TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, AM, AZ, BY,
 KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES,
 FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
 BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
 AU 2003274762 A1 20040615 AU 2003-274762 20031028
 EP 1569922 A1 20050907 EP 2003-758967 20031028
 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
 IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
 BR 2003016439 A 20051011 BR 2003-16439 20031028
 CN 1714086 A 20051228 CN 2003-80103741 20031028
 JP 2004182722 A 20040702 JP 2003-379597 20031110
 US 2006052422 A1 20060309 US 2005-532478 20050422
 US 7301032 B2 20071127
 ZA 2005003460 A 20060830 ZA 2005-3460 20050429
 MX 2005PA05336 A 20050725 MX 2005-PA5336 20050518
 IN 2005CN00988 A 20070622 IN 2005-CN988 20050520
 PRIORITY APPLN. INFO.: JP 2002-337884 A 20021121
 WO 2003-JP13750 W 20031028
 OTHER SOURCE(S): MARPAT 141:23538
 GI



AB The invention relates to novel 1,2,4-thiadiazole compds. I [wherein: R1 = C3-7 alkynyl that may be substituted with halo; R2 = C3-8 cycloalkyl which may be substituted with C1-4 alkyl, halo, CF3, or the like; A1 = bond, C1-2 alkylene, or C2-3 alkylidene]. I have excellent arthropod-controlling activity, and can effectively control arthropod pests such as insects, acarids, and the like. Examples include 15 product syntheses, 8 precursor preps., 8 formulations, and 1 bioassay. For instance, 5-chloro-3-(methylthio)-1,2,4-thiadiazole was alkylated with cyclohexylzinc bromide using a Pd complex catalyst, and S-oxidized using m-CPBA, to give 3-(methylsulfonyl)-5-cyclohexyl-1,2,4-thiadiazole. This sulfone was coupled with 2-butyne-1-ol using NaH in DMF, to give invention compound 5-cyclohexyl-3-(2-butynyloxy)-1,2,4-thiadiazole (II). At 500 ppm (spray) against *Aphis gossypii* on cucumber seedlings, each exemplified compound I reduced the number of plant parasites from 20 individuals to not greater than 3.

L13 ANSWER 2 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2004:333715 CAPLUS Full-text

DOCUMENT NUMBER: 140:339331

TITLE: Preparation of thiadiazole compounds as arthropodicides

INVENTOR(S): Ihara, Hideki

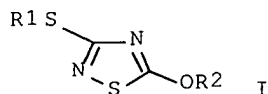
PATENT ASSIGNEE(S): Sumitomo Chemical Company, Limited, Japan

SOURCE: PCT Int. Appl., 70 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004033452	A1	20040422	WO 2003-JP12831	20031007
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
JP 2004131438	A	20040430	JP 2002-298489	20021011
AU 2003271112	A1	20040504	AU 2003-271112	20031007
EP 1550661	A1	20050706	EP 2003-751359	20031007
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003014616	A	20050726	BR 2003-14616	20031007
CN 1703413	A	20051130	CN 2003-80101245	20031007
ZA 2005002499	A	20060628	ZA 2005-2499	20031007
US 2006014962	A1	20060119	US 2005-528398	20050317
MX 2005PA03666	A	20050608	MX 2005-PA3666	20050406
IN 2005CN00575	A	20070622	IN 2005-CN575	20050407
PRIORITY APPLN. INFO.:			JP 2002-298489	A 20021011
			WO 2003-JP12831	W 20031007
OTHER SOURCE(S):			MARPAT 140:339331	
GI				



AB Title compds. I (R1 = alkyl, alkenyl, alkynyl, etc.; R2 = heterocyclalkyl) are prepared Thus, reaction of 5-chloro-3-(4-methylbenzyl)thio-1,2,4-thiadiazole with 2,2-dimethyl-1,3-dioxolane-4-methanol in DMF in the presence of NaH at room temperature for 4 h gave 5-(2,2-dimethyl-1,3-dioxolan-4-yl)methoxy-3-(4-methylbenzyl)thio-1,2,4-thiadiazole (II). II showed arthropodocidal activity against *Aphis gossypii* at 500 ppm.

REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 3 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN

ACCESSION NUMBER: 2003:570972 CAPLUS Full-text

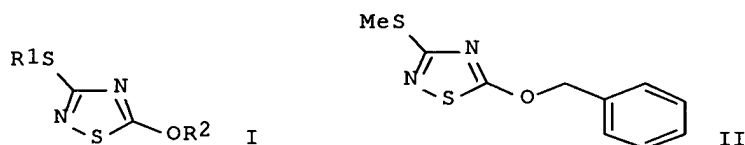
DOCUMENT NUMBER: 139:133570

TITLE: Preparation of 5-alkyloxy-3-alkylthio-1,2,4-thiadiazole derivatives having control activities against injurious arthropods

INVENTOR(S): Ihara, Hideki; Sakamoto, Noriyasu; Tomioka, Hiroki

PATENT ASSIGNEE(S): Sumitomo Chemical Company, Limited, Japan
 SOURCE: PCT Int. Appl., 65 pp.
 CODEN: PIXXD2
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003059897	A1	20030724	WO 2003-JP237	20030115
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003203224	A1	20030730	AU 2003-203224	20030115
JP 2003277372	A	20031002	JP 2003-6746	20030115
EP 1475374	A1	20041110	EP 2003-701718	20030115
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003006823	A	20041221	BR 2003-6823	20030115
CN 1617863	A	20050518	CN 2003-802385	20030115
US 2005215578	A1	20050929	US 2004-498651	20040610
US 7273879	B2	20070925		
IN 2004CN01534	A	20060210	IN 2004-CN1534	20040709
US 2007293510	A1	20071220	US 2007-880846	20070724
PRIORITY APPLN. INFO.:			JP 2002-8356	A 20020117
			WO 2003-JP237	W 20030115
			US 2004-498651	A3 20040610
OTHER SOURCE(S):			MARPAT 139:133570	
GI				

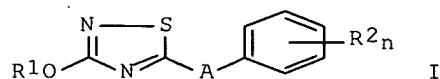


AB The title thiadiazole compds. with general formula of I, which have excellent control activities against injurious arthropods, [wherein R¹ = Me, alkenyl, alkoxyalkyl, alkylthioalkyl, alkoxyalkoxyalkyl, alkylthioalkoxyalkyl, (un)substituted PhO-alkyl, Ph-alkoxyalkyl, or acyloxyalkyl; R² = (un)substituted Ph-alkyl, Py-alkyl, or pyrimidylalkyl] are prepared For example, 5-chloro-3-methylthio-1,2,4-thiadiazole was reacted with PhCH₂OH in DMF in the presence of NaH to give 5-benzyloxy-3-methylthio-1,2,4-thiadiazole (II). I at concentration of 500 ppm killed more than 85% of aphid gossypii on cucumber seedlings in 6 days.

REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L13 ANSWER 4 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 2002:900807 CAPLUS Full-text
 DOCUMENT NUMBER: 137:381259
 TITLE: Preparation of 1,2,4-thiadiazole compounds
 and arthropodocides containing them
 INVENTOR(S): Ihara, Hideki; Sakamoto, Noriyasu
 PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd., Japan
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.
 CODEN: JKXXAF
 DOCUMENT TYPE: Patent
 LANGUAGE: Japanese
 FAMILY ACC. NUM. COUNT: 1
 PATENT INFORMATION:

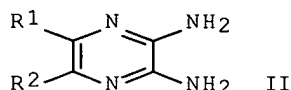
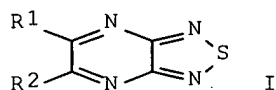
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002338557	A	20021127	JP 2001-152269	20010522
WO 2004041798	A1	20040521	WO 2002-JP11644	20021108
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2002368330	A1	20040607	AU 2002-368330	20021108
BR 2002015911	A	20050726	BR 2002-15911	20021108
EP 1574505	A1	20050914	EP 2002-808100	20021108
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
CN 1688559	A	20051026	CN 2002-829792	20021108
US 2006167266	A1	20060727	US 2005-530136	20050404
ZA 2005002910	A	20060628	ZA 2005-2910	20050411
MX 2005PA04824	A	20050722	MX 2005-PA4824	20050504
IN 2005CN00857	A	20070810	IN 2005-CN857	20050506
PRIORITY APPLN. INFO.:			JP 2001-152269	A 20010522
			WO 2002-JP11644	A 20021108
OTHER SOURCE(S):			MARPAT 137:381259	
GI				



AB The compds. I [R1 = C3-7 (halo)alkenyl; R2 = halo, C1-4 alkyl, C1-3 haloalkyl, C1-4 haloalkoxy, cyano, NO2; n = 0-5; A = O, S, direct bond, CR3R4, NR5; R3, R4 = H, C1-4 alkyl; R5 = H, C1-7 alkyl, C1-3 haloalkyl, C2-4 (halo)alkoxyalkyl, C3-6 (halo)alkenyl, C3-7 (halo)alkynyl, CH2CN] and arthropod control agents containing I are claimed. A composition containing 5-phenyl-3-propargyloxy-

1,2,4-thiadiazole (preparation given), showed $\geq 90\%$ control against *Aphis gossypii* parasitic on cucumber seedlings.

L13 ANSWER 5 OF 5 CAPLUS COPYRIGHT 2007 ACS on STN
 ACCESSION NUMBER: 1997:481831 CAPLUS Full-text
 DOCUMENT NUMBER: 127:205546
 TITLE: Studies of pyrazines. Part 33. Synthesis of
 2,3-diaminopyrazines via [1,2,5]thiadiazolo
 [3,4-b]pyrazines
 AUTHOR(S): Sato, Nobuhiro; Mizuno, Hajime
 CORPORATE SOURCE: Department Chemistry, Yokohama City University,
 Yokohama, 236, Japan
 SOURCE: Journal of Chemical Research, Synopses (1997), (7),
 250-251
 CODEN: JRPSDC; ISSN: 0308-2342
 PUBLISHER: Royal Society of Chemistry
 DOCUMENT TYPE: Journal
 LANGUAGE: English
 OTHER SOURCE(S): CASREACT 127:205546
 GI



AB The syntheses of [1,2,5]thiadiazolo[3,4-b]pyrazines I (R1 = H, Me, Ph, R2 = H; R1 = Me, R2 = H, Me; R1 = Ph, R2 = Me; R1 = R2 = Ph) as well as their reduction to 2,3-diaminopyrazines II are described.
 REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> d his nofil

(FILE 'HOME' ENTERED AT 15:07:22 ON 28 DEC 2007)

FILE 'REGISTRY' ENTERED AT 15:07:56 ON 28 DEC 2007

L1 STR
 L2 3 SEA SSS SAM L1
 L3 98 SEA SSS FUL L1

FILE 'CAPLUS' ENTERED AT 15:09:48 ON 28 DEC 2007

L4 21 SEA ABB=ON PLU=ON L3
 E IHARA H/AU
 L5 242 SEA ABB=ON PLU=ON ("IHARA H"/AU OR "IHARA HIDEAKI"/AU OR
 "IHARA HIDEKI"/AU)
 E TAKAOKA D/AU
 L6 51 SEA ABB=ON PLU=ON ("TAKAOKA D"/AU OR "TAKAOKA DAISUKE"/AU)
 E MIZUNO H/AU
 L7 186 SEA ABB=ON PLU=ON ("MIZUNO H"/AU OR "MIZUNO HAJIME"/AU)
 L8 474 SEA ABB=ON PLU=ON (L5 OR L6 OR L7)
 L9 6 SEA ABB=ON PLU=ON L8 AND THIA? AND ?AZOL?
 L10 1 SEA ABB=ON PLU=ON L9 AND L4

10/567,984

December 28, 2007

L11 1 SEA ABB=ON PLU=ON L4 AND L8
L12 21 SEA ABB=ON PLU=ON L4 OR L10
L13 5 SEA ABB=ON PLU=ON L9 NOT L10

FILE 'CAPLUS' ENTERED AT 15:12:41 ON 28 DEC 2007

D QUE L12

D L12 IBIB ABS HITSTR TOT

D QUE L13

D L13 IBIB ABS TOT